ISONIAZID AS AN ALDEHDYE SCAVENGER:

ANALYSIS OF ITS KINETICS, SELECTIVITY, AND PRACTICALITY IN PURIFYING

ORGANIC REACTIONS

by

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I dedicate this research to my parents. I couldn't have done it without you.

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ABSTRACT

Aurones are a member of the flavonoid family of natural products that have only been lightly investigated even though they possess interesting clinically relevant activity including anti-parasitic, anti-inflammatory, anti-fungal, anti-viral and anti-cancer. Preparation of aurones, most commonly through a Knovenagel condensation between an aryl aldehyde and a benzofuranone, while a simple one-step synthesis rarely yields a product of sufficient purity for assaying and thus require time consuming purifications. To expedite the synthesis of aurones, a method of purification utilizing Isoniazid as an aldehyde scavenger has been developed that allows for the rapid preparation of new collections of compounds in a matter of days, rather than the weeks that were required using conventional purification. Additionally, it is anticipated that this same scavenging approach can be applied to many other reactions of the aldehyde functional group, enabling convenient and rapid access to arrays generated by these reactions as well.

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CHAPTER 1: INTRODUCTION

Aurones

First isolated from the petals of yellow flowering plants over 60 years ago, aurones are a member of the flavonoid family of natural products, and possess interesting biological activity, which could benefit from further study.¹⁻³ Structurally, flavonoids consist of a fifteen-carbon skeleton with a C6-C3-C6 pattern or a three-carbon bridge connecting two phenyl rings. For most flavonoids this three carbon bridge forms a third six membered ring system, however, aurones are structurally distinct from other members of the flavonoids family due to the three-carbon bridge forming a furanone with an arylidene moiety at the two position.⁴ The exocyclic alkene of aurones both natural and synthetic has been almost exclusively reported as being in the Z confirmation, although a mixture of E and Z isomers can be formed via photoisomerization (generally still favoring the thermodynamic Z isomer).^{2,5} Studies of natural and synthetic aurones have demonstrated this framework to possess a wide range of biological activity including anti-parasitic, anti-inflammatory^{6,7}, anti-fungal⁸, anti-viral and anti-cancer.^{2,3,9} Despite this interesting biological activity they remain a largely neglected member of the flavonoid family, as evidenced by Table 1. The limited and slow exploration of aurones is due to aurones being present in very small quantities in natural sources; fortunately a variety of synthetic methods have been developed for their preparation.^{2,3,10} Due to their biosynthesis, aurones isolated from plants are typically highly oxygenated, containing multiple hydroxy and methoxy substituents.^{2,10} Synthetic efforts have yielded a much more diverse set of aurones including examples containing halogen, amino, alkyl, and aryl substituents; additionally, modifications of the

core skeleton to include five membered ring systems and heteroatoms have been reported.^{8,9,11,12}

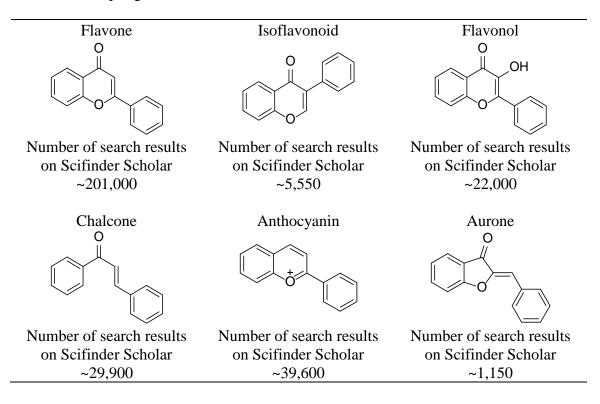


Table 1: A sampling of flavonoids and Scifinder Scholar search results¹³

Aurone synthesis: oxidative cyclization of 2'-hydroxy chalcones

In terms of aurone synthesis, one of the most commonly reported methods of involves the oxidative cyclization of 2'-hydroxy chalcones. Initial interest in this method is likely because the biosynthesis of aurones follows a similar route catalyzed by one of several enzymes such as aureusidin synthase.² Multiple reagents for the oxidative cyclization have been reported including mercury (II) acetate, thallium (II) nitrate, tetrabutylammonium tribromide, and copper (II) bromide. The major flaw in this synthetic

strategy is the need for 2'-hydroxy chalcones as the starting material, few of which are commercially available. Those that are not commercially available must be synthesized via some method, the most straightforward of which is through a Claisen-Schmidt condensation between a 2'-hydroxy acetophenone and an aryl aldehyde.¹⁴ This essentially makes the preparation of an aurone derivative a two-step synthesis which, while not unreasonable, is more time consuming than other syntheses. In addition, the most commonly used reagents (mercuric acetate and thallium nitrate) are highly toxic.

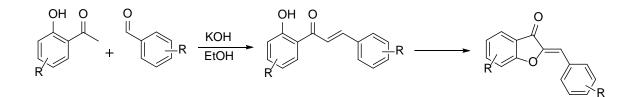


Figure 1: Synthesis of 2'-hydroxy chalcones via Claisen-Schmidt condensation followed by oxidative cyclization to yield aurone.¹⁴

Aurone synthesis: Suzuki-Miyaura coupling

A more recently reported method for the synthesis of aurones is a Suzuki-Miyaura coupling between a boronic acid and a 2-(bromomethylene)-benzofuran-3(2H)-one as reported by Kraus and Gupta.¹⁵ The major advantage of this method lies in the high efficiency of the coupling reaction and the numerous commercially available boronic acids. This reaction is sufficient for explorations into derivations of the arylidene portion; however, derivations of the benzofuroanone portion using this reaction is inefficient as the 2-(bromomethylene)-benzofuran-3(2H)-one is not commercially available and must be prepared in a three-step synthesis. Kraus and Gupta synthesized the 2-(bromomethylene)-

benzofuran-3(2H)-one reagent starting with a Steglich esterification between 3,4,5trimethoxy phenol and 3,3-dibromoacryllic acid.¹⁵ This was followed by a Fries rearrangement which yielded the desired ortho substitution but would be problematic for any phenol which was not para substituted as the Fries rearrangement results in a mixture of ortho and para isomers. Finally the product was reached by cyclization using sodium hydroxide after which the product can be coupled to a boronic acid through a palladium catalyzed Suzuki-Miyaura cross coupling.¹⁵ This synthetic strategy holds promise but needs to undergo further analysis to elucidate any limitations.

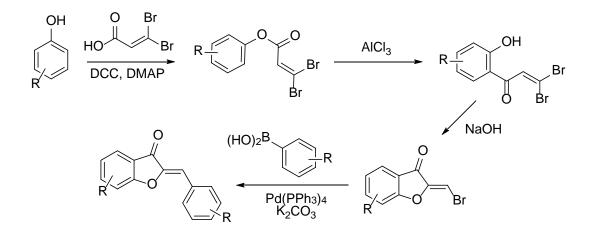


Figure 2: Synthesis of the 2-(bromomethylene)-benzofuran-3(2H)-one reagent and aurone synthesis via Suzuki-Miyaura cross coupling.¹⁵

Aurone synthesis: Au/Ag cyclization

Harkat et al. developed an interesting method of aurone synthesis.¹⁶ The reaction sequence begins with a alkynylation of a 2-hydroxy benzaldehyde derivative, followed by a gold (I) chloride and potassium carbonate catalyzed cyclization, and finally oxidation of

the secondary alcohol to afford the aurone product. An interesting note is that the corresponding flavone product can be prepared if oxidation occurs before the Au (I) catalyzed cyclization. Li et al. was able to simplify this reaction to a twostep synthesis by combining the cyclization and the oxidation into a one pot synthesis using silver (I) nitrate in place of gold (I) chloride.¹⁷ This reaction while a two to three step synthesis is advantageous in that the starting materials are particularly abundant.

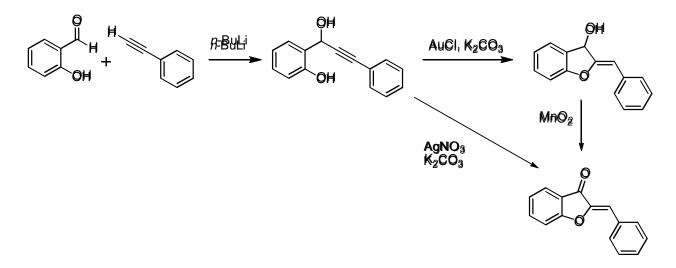


Figure 3: Aurone synthesis via alkynylation followed by Au/Ag catalyzed cyclization.^{16,17}

Aurone synthesis: Knovenagel condensation

Ultimately the Knovenagel condensation remains the most commonly used method for the preparation of aurones due to its one step synthesis from commercially available reagents.^{3,10} There exist a wide variety of commercially available aldehydes allowing easy access to numerous aurones containing arylidene derivations, and there are similarly a significant, but more limited, number of commercially available benzofuranones. Additionally, a wide variety of reaction conditions have been reported for the Knovenagel condensation including acidic, basic, and neutral conditions.^{12,18–20} The one modestly limiting factor in this strategy is the utilization of benzofuranones: derivatives that are commercially available can be expensive and those that are not commercially available must be synthesized. The synthesis of benzofuranones is still advantageous compared to other methods as several efficient routes are available for the synthesis of benzofuranones and each benzofuranone can be employed in multiple Knovenagel condensations.^{3,21–23}

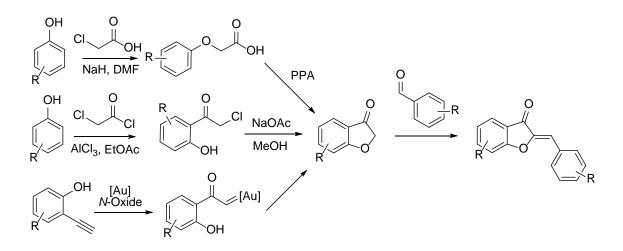


Figure 4: Preparation of benzofuranones and Aurone synthesis via Knovenagel condensation.^{3,21–23}

Issues with conventional aurone synthesis

While each synthetic strategy for the preparation of aurones has its advantages and disadvantages, one disadvantage is omnipresent - the need for purification.²⁴ Rarely does any organic reaction provide a pure product. This can happen for a variety of reasons: use of imperfect stoichiometric ratios, consumption of reagents in side reactions, as is the case with the oxidation of aldehydes into carboxylic acids, imperfect selectivity, etc. Column

chromatography, perhaps the most ubiquitous method of purification, is expensive in terms of both material and time, and in our experience, has shown yields lower than one would expect after TLC and NMR analysis of the crude product. Trituration works in some cases but results in decreased yields and there is no universal trituration solvent for aurones.¹² Given the promising preliminary biological activities, it is of great interest to develop a method that would avoid time-consuming chromatographic separations and thereby enable the rapid synthesis of sizable arrays varying the aurone skeleton in both the benzofuranone and aldehyde-derived portions. This bottleneck can hopefully be alleviated through incorporation of methods used in the synthesis of combinatorial libraries.

Combinatorial chemistry

Combinatorial chemistry focuses on the quick and efficient generation of arrays of related compounds (often called libraries).²⁴ Utilization of combinatorial methods became particularly prominent during the 1990s, but its origin lies in the 1960's with Robert Merrifield's Nobel Prize winning work in solid phase peptide synthesis.^{24–26} In the approximately sixty years since, combinatorial chemistry has continued to develop and now the facile generation of chemical libraries with compounds numbering in the thousands and millions is readily possible.^{25,27} Initial work in combinatorial chemistry focused on the synthesis of peptides, oligonucleotides, and other polymeric compounds but has since expanded to include the synthesis of small molecule libraries.²⁷ While there are various methods of combinatorial synthesis such as solid phase synthesis^{28,29}, traceless synthesis^{26,30}, on-chip synthesis³¹, fluorous phase purification³², and scavenger assisted purification^{33,34}, just to name a few, there exist several key similarities: all of these methods aim to avoid time consuming purifications by exploiting differences in chemical or

physical properties such as solubility, magnetic susceptibility, or partitioning coefficient; reactions are run in tandem, either in one pot or in parallel reaction vessels; and each of these reactions employ an excess of one or more reagents in order to drive reactions to completion.^{24,28,35} The most common technique employed in combinatorial chemistry is the use of a support most frequently attached to one of the reactants. Supports can be composed of solids such as polystyrene³⁶ and silica³⁷ or tags such as ionic liquids³⁴ and fluorous supports³⁸.

Supported synthesis

Supported synthesis has been shown to be an excellent method for the combinatorial synthesis of peptides, peptoids, and oligonucleotides.^{35,39} Combinatorial libraries of peptides have been prepared containing millions of compounds using the one bead-one compound methodology.^{35,40} The success of supported synthesis in these polymeric syntheses led to the implementation of these same methods and principles into small molecule synthesis.²⁴ The majority of supported syntheses follow the same basic protocol and commence with the tethering of a support S to one of the reagents A, a compound that will be used in subsequent reactions, through a linker L; this attachment is done at an already present functional group X, such as the carboxylic acid on an amino acid.²⁶ The linker is any chemical compound that can be covalently attached to both the solid support **S** and the reactant **A** connecting the two entities together.⁴¹ The next step is the reaction of supported A with an excess of B to form a mixture of product AB and unreacted reagent **B**; the reaction can then be separated from excess reagent **B**. Purification of a compound immobilized on a solid support for instance, works via retention of the compound **AB** tethered to the solid support allowing the resin to be washed removing any

non-immobilized compounds.²⁴ Once the reaction has been purified, product **AB** can be cleaved from the support **S**, returning **X** in its original functionality.

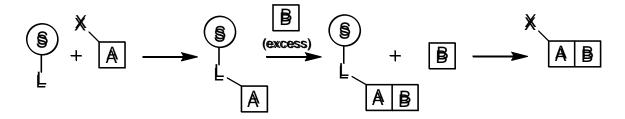


Figure 5: General Approach for Supported Synthesis.

Kwak et al. reported the parallel solid phase synthesis of a quinoline library.⁴² Carboxylic acid **1** was first synthesized using traditional solution phase synthesis then reacted with PL-FDMP resin and NaBH(OAc)₃, which resulted in the linking of the solid support to the primary amine at the 5-position. A primary amine was then coupled with the carboxylic acid to produce an amide, followed by nucleophilic acyl substitution of an acid chloride by the secondary amine at the 5-position. The compound can be purified via filtration after each step avoiding the need for chromatographic purifications. Finally, the compounds were cleaved from the resin by 10% TFA in dichloromethane. Of the 29 compounds synthesized 23 possessed purities greater than 70%, the low purities of some derivatives are likely due to steric hindrance caused by the solid support in the nucleophilic acyl substitution reaction of the acid chloride and the secondary amine. The work of Kwak et al. is not only demonstrative of how supported synthesis can enable the quick derivatization of compounds by avoiding time consuming purifications but also highlights

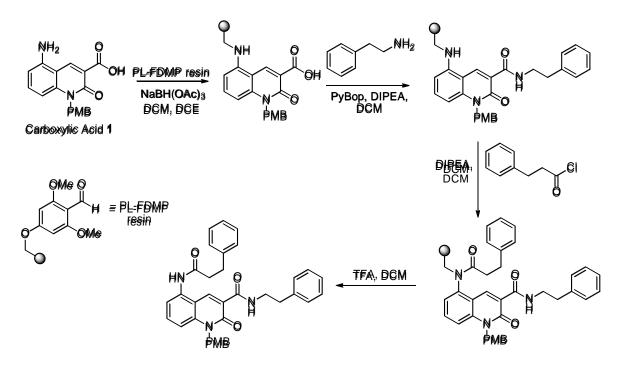


Figure 6: Kwak et al. Supported Synthesis of Quinolines.⁴²

Supported synthesis is a powerful method for the facile synthesis of chemical libraries but neither of the reagents in the Knovenagel condensation contain a ubiquitous chemical handle (such as the amine in the synthesis reported by Kwak et al.) to which a support could be tethered.^{18,42} While reagents containing such a chemical handle could be used, to do so would require specialized reagents be purchased or prepared through what would likely be a multistep synthesis. Even more problematic though is the use of reagents containing such a chemical handle could leave nonessential functional groups, which can dramatically alter a molecules biological activity.²⁶ To combat this problem in other

situations, a method referred to as traceless synthesis has been developed. Traceless synthesis utilizes the same principles of supported synthesis but with a couple of modifications. Where traditional supported synthesis uses an already present functional group \mathbf{X} to tether a solid support, then runs the desired series of reactions, and returns the functional group to its original state \mathbf{X} , traceless synthesis utilizes the same basic process but instead of reforming functional group \mathbf{X} after cleavage of the solid support a new functional group \mathbf{Z} is formed, leaving no "trace" of where the solid support was attached.

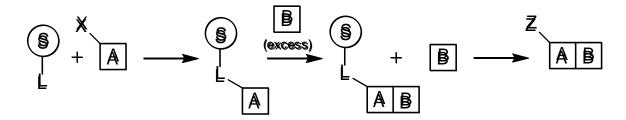


Figure 7: General Approach for Traceless Synthesis.

He et al.³⁰ reported the synthesis of xanthine derivatives through two routes, one through traditional solution phase synthesis, the other through traceless solid phase synthesis. The reaction sequence for the solid phase synthesis begins with a Steglich esterification between Wang resin and bromoacetic acid; the product of this reaction was then used in the alkylation of a primary amine, followed by reaction with one of two ethoxymethylene cyanamides. The product of that reaction was then cyclized using tBuOK in a 1:1 mixture of tBuOH and DMF, which He et al. noted was necessary due to the poor swelling of the resin in neat butanol, which blocks access of the reagent to the supported compound. The imidazole intermediate was then reacted with various isocyanates and

finally underwent cyclization and cleavage to yield a di or tri xanthine. The solid support was tethered to a carboxylic acid throughout the reaction, but the cleavage transformed the carboxylic acid into an amide leaving no extraneous functionality. The solution phase synthesis followed a similar route with only minor deviations. The solution phase synthesis provided an overall yield of 31% for 1-Hexyl-7-butylxanthine and required five chromatographic purifications. The solid phase synthesis of similar xanthines had overall yields of 14-35% and required only one chromatographic purification.

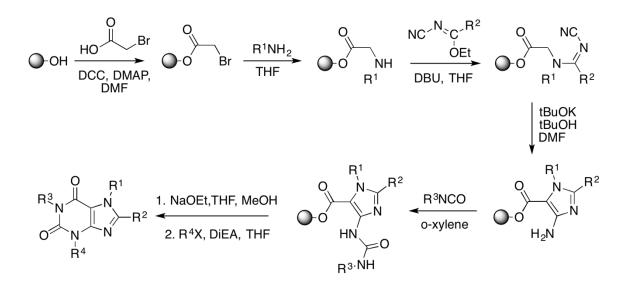


Figure 8: He et al. solid phase synthesis of xanthine derivatives.³⁰

Unfortunately, traceless synthesis is not truly "traceless" as the majority of such methods leaves some non-carbon functionality.²⁶ Beyond the lack of such a chemical handle, supported synthesis possesses other limitations. Limitations such as the attachment of the support at the wrong position can limit reactivity at other sites, as is likely the case in the nucleophilic acyl substitution reported by Kwak et al.^{27,42} Additional challenges lie in the intermediate reactions, if these reactions are not efficient and selective, supported

synthesis can yield a mixture of starting materials, side products, and product.³⁵ Which resin is used also dictates what solvents, and reagents can be used; use of incompatible solvents will result in the resin not swelling and blocking reagents from reaching the tethered compounds as noted by He et al., while use of the wrong reagent can prematurely cleave compounds from the resin.³⁰ While most of these challenges can be overcome by thoughtful strategy in planning the chemical synthesis, to do so would require the development of a novel methodology which would consume significant resources.

Supported reagents

The use of supported or immobilized reagents in combinatorial synthesis has also been reported. A supported reagent can be added to a reaction mixture in excess, allowed to react, and then the support and excess reagent bound to it can quickly and efficiently be removed. The key difference between supported synthesis and supported reagents is that with supported reagents the support serves as a delivery mechanism, as the product of the reaction will not be bound to the support. Additionally, using supported reagents allows for easy handling which is useful when using toxic reagents such as pyridium chlorochromate as reported by Naik et al.⁴³ The first step of the reaction sequence is still the attachment of a support **S** to one of the reagents needed in the subsequent reactions **B** through some chemical linker **L**. The key difference in the design and use of supported reagents is that the attack of reagent **A** on reagent **B** cleaves reagent **B** from the linker **L**. Supported reagent **B** is used in excess in order to drive the reaction to completion and as only the reaction between **A** and **B** causes cleavage from the support. Unreacted **B** will remain attached to the support and the reaction can then be purified via some separation method such as filtration with the product being washed through while the unreacted reagent remains immobilized on the support.

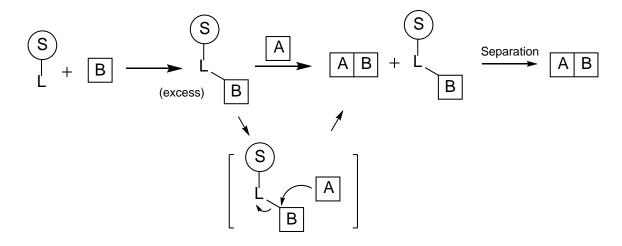


Figure 9: General Approach for a Supported Reagent.

Jung et al. reported the synthesis and application of a supported reagent for the preparation of dithianes and dithiolanes.⁴⁴ These reagents were prepared via coupling of amino-methyl resin and adipoyl chloride, followed by reaction of the acyl chloride with a dithiol in the presence of tetrafluoroboric acid complexed with diethyl ether to form immobilized dithioanylium and dithanylium tetrafluoroborate salts. The dithioanylium and dithanylium tetrafluoroborate salts. The dithioanylium and dithanylium tetrafluoroborate salts can then be reacted with aldehydes and ketones to form the desired dithiane and dithiolane product, the formation of which cleaves it from the support. Exploration into the chain length of the diacylchloride linker revealed that a one carbon bridge between the amide and the dithioanylium and dithanylium tetrafluoroborate salts is of insufficient length and leaves the product contaminated with impurities; a carbon bridge of two or more is sufficient to yield the dithioacetalization product for aryl aldehydes in high purity and high yield. Jung et al. does note that the yields for the reaction

of the immobilized reagents with aliphatic and vinylic aldehydes is dependent on the nature of the aldehyde; α , β -unsaturated aldehydes were reported as having particularly low yields but did maintain high purity; Jung et al. theorized that the α , β -unsaturated aldehydes were able to react with the linker providing immobilized side products.

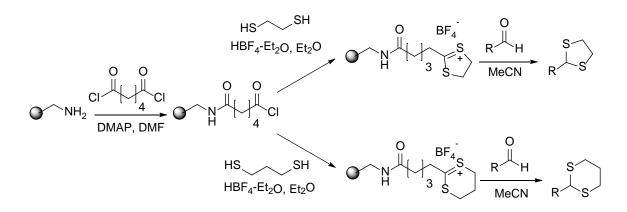


Figure 10: Jung et al. synthesis of supported thioacetal reagent.⁴⁴

The use of supported reagents is problematic however in that it requires the development of a methodology for the attachment and delivery of said reagent. Perhaps the most problematic issue with supported reagents is that the reagent must be linked to the support in a way that allows for its cleavage during the reaction. The synthesis of such reagents often requires considerable optimization for example by determining the optimal length of the carbon chain of the linker in the reagent reported by Jung et al.⁴⁴

Scavengers

In addition to supported synthesis and supported reagents which both rely on presynthetic modification of starting material, scavengers are added after the completion of the reaction sequence to scavenge out remaining reagents or side products. Scavengers rely on what Flynn et al. termed complementary molecular reactivity and recognition (CMR/R); the use of scavengers that will react with functional groups present in reactants, reagents, catalysts, and byproducts but are absent in the product.⁴¹ Scavengers also rely on the use of a support, typically polymer bound, to allow for the easy purification of products.

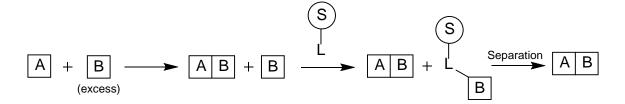


Figure 11: General Approach for Purification via Scavenger.

The use of scavengers does not vary much from traditional reactions as the purification is performed post synthesis. The reaction is carried out as normal, reagent **A** reacts with **B** to form compound **AB** where reagent **B** is used in excess to drive the reaction to completion. This yields a mixture of product **AB** and reagent **B**, to which a scavenger composed of a support **S** and a linker **L** is added. The linker possesses functionality that will react with reagent **B** but not with product **AB**, thus the scavenger selectively reacts with **B** which can then be separated from product **AB** through some method such as filtration in the case of a solid supported scavenger.

The use of scavengers is advantageous in that reactions are run in solution phase allowing for homogeneous reaction conditions and monitoring of the reaction, fewer steps typically as there is no need to attach/detach the resin.³³ Scavenging reactions require less solvent, solid support, and is more time efficient than traditional methods such as column chromatography. Additionally, polymer bound scavengers can be employed in tandem even if they contain functionality that can react with one another as the rate of reaction between the two bound functionalities is much slower than reaction with the solution phase reagents. Unfortunately, since reactions must be run in solution phase they must be run in parallel.

One example of scavenger assisted purification reported by Flynn et al. employed an excess of an acylating reagent in a reaction with either a primary or secondary amine to yield the corresponding urea, amide, carbamate, or sulfonamide in addition to left over acylating reagent.⁴¹ Purification proceeded using polymer supported amino-methyl resin which selectively reacted with the acylating reagents through nucleophilic acyl substitution, after which filtration and drying of the filtrate yielded the product. Ten of the twelve compounds synthesized via this methodology had yields greater than 88% and all twelve derivatives had purities greater than 94.8%.

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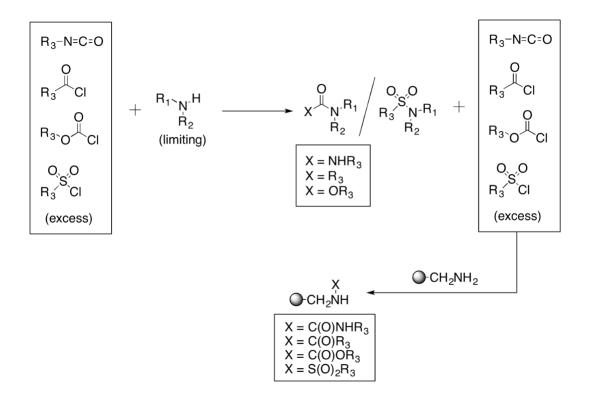


Figure 12: Flynn et al. synthesis of urea, amide, carbamate, and sulfonamide compounds and purification via an aminomethyl polymer supported scavenger.⁴¹

Zhen et al. recently published the development of a carbonyl scavenger synthesized from thiosemicarbizides and formaldehyde containing primary amines which can attack electrophilic carbonyls. In four steps the thiosemicarbazide was polymerized after which iron (II,III) oxide nanoparticles were incorporated into the polymer thus creating a magnetically retrievable scavenger. The scavenger was regeneratable and underwent attack of ketones, aldehydes, and while effective on more electrophilic carbonyls the scavenger was unable to be regenerated in such cases. One issue with the use of polymer reagents however is the solvent dependency of the reaction and the low loading level. When using polymer supported reagents it is necessary for the polymer to swell to allow access of the substrate to the reactive sites within the polymer. One major advantage of scavengers that do not rely on filtration as a separation technique is that diameter of the particles can be smaller allowing greater dispersal and the formation of a semi-homogenous mixture.

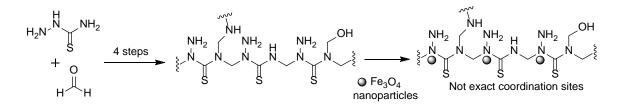


Figure 13: Zhen et al. magnetic supported carbonyl scavenger.³³

Oliveria et al. reported the use of Isonicotonic acid hydrazide (Isoniazid) supported on Amberlyst-15 as an inexpensive scavenger for ketones and aldehydes.⁴⁵ The acidic Amberlyst-15 resin protonates the pyridine moiety of Isoniazid forming what they termed Amb15-Iso. Their exploration of Amb15-Iso was rather limited as it's efficacy was only tested in scavenging acetone and isobutyraldehyde. Analysis of solvent effects on the efficiency of the scavenger showed that increased solvent polarity was directly correlated with the rate of reaction while water solubility was inversely correlated. One limitation of their scavenger was the low loading levels of 0.11 to 0.28 mmols per gram of resin.

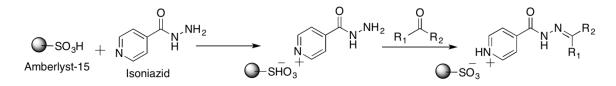


Figure 14: Oliveras et al. supported carbonyl scavenger.⁴⁵

This project

The aim of this project is the incorporation of combinatorial methods into the preparation of aurones to accelerate their synthesis. The preferred mechanism through which to accomplish this through the Knovenagel condensation between an aryl aldehyde and a benzofuranone, as it is a one-step synthesis from commercially available starting materials.

CHAPTER 2: EXPERIMENTAL

Protocol 1: Aldol condensation of benzofuranones with aldehydes and purification via polystyrene supported aldehyde scavengers.

Benzofuranone (0.2 mmol) and aldehyde (0.4 mmol) were combined in a dry vial. 0.7 g of neutral alumina was then added followed by 3 mL of dichloromethane. The reaction mixture was stirred for 12 hours at 25 °C. After 12 hours a polymer supported scavenger (2 equivalents of scavenger with respect to the benzofuranone) was added to the reaction mixture and stirred an additional 12 hours. The reaction mixture was then filtered and washed with a 1:1:1 mixture of methanol, ethyl acetate, and acetone. The filtrate was then concentrated to dryness *in vacuo* to afford the desired aurone.

Protocol 2: Aldol condensation of benzofuranones with aldehydes and purification via Isoniazid.

Benzofuranone (0.2 mmol) and aldehyde (0.4 mmol) were combined in a dry vial. 0.7 g of neutral alumina was then added followed by 3 mL of dichloromethane. The reaction mixture was stirred for 12 hours at 25 °C. After 12 hours Isoniazid (0.4 mmol) was added to the reaction mixture and stirred an additional 12 hours. The reaction mixture was then filtered and washed with a 1:1:1 mixture of methanol, ethyl acetate, and acetone. The filtrate was then concentrated to dryness *in vacuo* and resuspended in ethylacetate followed by a 3x liquid-liquid extraction with 1N HCl performed. The organic layer was then concentrated to dryness *in vacuo* to afford the desired aurone.

(Z)-4-((3-oxobenzofuran-2(3H)-ylidene)methyl)benzonitrile (Entry 1A-1D)

1A was prepared per **Protocol 1** utilizing p-toluenesulfonyl hydrazide - polymer bound and yielded 10 mg (20%).

1B was prepared per **Protocol 1** utilizing Sulfonyl amide – polymer bound and yielded 36 mg (72%).

1C was prepared per **Protocol 1** utilizing Ethylenediamine – polymer bound and yielded 36 mg (72%).

1D was prepared per **Protocol 2** and yielded 35 mg (70%).

Yellow solid. MP = 181-184 °C. IR (neat; thin film): 1703, 1650, 1602, 1475, 1461, 1302, 1190, 1130, 1108, 885, 833, 755, 734, 699, 664, 645, 626 cm⁻¹; ¹H NMR (500 MHz, CDCl₃): 6.79 (s, 1H), 7.24 (t, *J* = 6.85 Hz, 1H), 7.32 (d, *J* = 8.6 Hz, 1H), 7.65-7.70 (m, 3H), 7.79 (d, *J* = 7.45, 1H), 7.97 (d, *J* = 8.55 Hz, 2H); ¹³C NMR (125 MHz, CDCl₃): 110.09, 112.65, 113.10, 118.65, 121.20, 124.17, 125.04, 131.61, 132.56, 136.83, 137.64, 148.21, 166.34, 184.65.

(Z)-4-((3-iminobenzofuran-2(3H)-ylidene)methyl)benzonitrile (Entry 2)

2 was prepared per **Protocol 1** utilizing p-toluenesulfonyl hydrazide - polymer bound and yielded 14 mg (29%) as a yellow solid. ¹H NMR (500 MHz, CHLOROFORM-D) δ 7.98 (d, *J* = 8.2 Hz, 2H), 7.81 (d, *J* = 7.7 Hz, 1H), 7.75 – 7.66 (m, 3H), 7.34 (d, *J* = 8.2 Hz, 1H), 7.26 (t, *J* = 7.5 Hz, 1H), 6.81 (s, 1H).

(Z)-2-(4-(trifluoromethyl)benzylidene)benzofuran-3(2H)-one (Entry 3)

3 was prepared per **Protocol 2** and yielded 26 mg (44%) as an orange-yellow solid (MP = 98-102 °C). IR (neat, thin film): 3020, 1700, 1600, 1320, 1110, 1080, 750 cm⁻¹; ¹H NMR (CDCl₃, 500 MHz): 8.01 (d, *J* = 8.0 Hz, 2H), 7.82 (d, *J* = 8.0 Hz, 1H), 7.69 (m, 3H), 7.35 (d, *J* = 8.5 Hz, 1H), 7.26 (m, 1H), 6.87 (s, 1H); ¹³C NMR (CDCl₃, 125 MHz) 184.76, 166.32, 147.80, 137.48, 135.74, 131.50, 131.00 (q, *J* = 32 Hz), 129.03, 125.78 (q, *J* = 4 Hz), 123.52 (q, *J* = 270 Hz), 122.17, 121.27, 113.06, 110.82

(Z)-2-(4-(dimethylamino)benzylidene)benzofuran-3(2H)-one (Entry 4)

4 was prepared per **Protocol 2** and yielded 13 mg (25%) as a red solid (MP = 168-170 °C). IR (neat, thin film): 3020, 1700, 1650, 1600, 1110, 750, 690 cm⁻¹; ¹H NMR (CDCl₃, 300 MHz): 7.85 (d, *J* = 5.4 Hz, 2H), 7.80 (d, *J* = 3.9 Hz, 1H), 7.60 (t, *J* = 4.2 Hz, 1H), 7.31 (d, *J* = 5.1 Hz, 1H), 7.18 (t, *J* = 4.5 Hz, 1H), 6.92 (s, 1H), 6.75 (d, *J* = 5.4 Hz, 2H), 3.07 (s, 6H); ¹³C NMR (CDCl₃, 75 MHz): 184.09, 165.36, 151.43, 145.10, 135.92, 133.74, 124.40, 122.97, 122.54, 120.07, 115.46, 112.86, 112.02, 40.16.

(Z)-2-(4-methylbenzylidene)benzofuran-3(2H)-one (Entry 5)

5 was prepared per **Protocol 2** and yielded 27 mg (57%) as a tan solid (MP = 75-76 °C). IR (neat, thin film): 3020, 2920, 1700, 1650, 1600, 1490, 1300, 1200, 1110, 900, 750 cm⁻¹; ¹H NMR (CDCl₃, 300 MHz): 7.8 (m, 3H), 7.64 (ddd, J = 8.6, 7.3, 1.4 Hz, 1H), 7.32 (d, J = 8.3 Hz, 1H), 7.23 (m, 3H), 6.89 (s, 1H), 2.40 (s, 3H); ¹³C NMR (CDCl₃, 75 MHz): 184.88, 166.12, 146.61, 140.63, 136.86, 131.70, 129.81, 129.60, 124.71, 123.46, 121.85, 113.53, 113.03, 21.75.

(Z)-2-(4-methoxybenzylidene)benzofuran-3(2H)-one (Entry 6)

6 was prepared per **Protocol 2** and yielded 31 mg (61%) as a red-orange solid (MP = 135-138 °C). IR (neat, thin film): 3020, 3000, 1700, 1670, 1600, 1510, 1240, 900, 820, 750 cm⁻¹; ¹HNMR (CDCl₃, 300 MHz) 7.90 (d, *J* = 8.91Hz, 2H), 7.80 (d, *J* = 6.87Hz, 1H), 7.65 (t, *J* = 7.2Hz. 1H), 7.31 (d, *J* = 8.25Hz, 1H), 7.21 (t, *J* = 7.2Hz, 1H), 7.00 (d, *J* = 8.94Hz, 2H), 6.89 (s, 1H), 3.87 (s, 3H); ¹³C NMR (CDCl₃, 75 MHz): 184.67, 165.92, 161.16, 145.97, 136.64, 133.55, 125.14, 124.65, 123.37, 122.03, 114.59, 113.52, 112.97, 55.49.

Methyl (Z)-4-((3-oxobenzofuran-2(3H)-ylidene)methyl)benzoate (Entry 7)

7 was prepared per Protocol 2 and yielded 28 mg (49%) as a yellow solid (MP = 144-

147 °C). IR (neat, thin film): 2980, 1700, 1650, 1280, 1050, 1020 cm⁻¹; ¹H NMR (CDCl₃, 300 MHz): 8.10 (d, J = 8.5 Hz, 2H), 7.96 (d, J = 8.3 Hz, 2H), 7.81 (ddd, J = 7.7 Hz, J = 1.4 Hz, J = 0.6 Hz, 1H), 7.68 (ddd, J = 8.6 Hz, J = 7.3 Hz, J = 1.4 Hz, 1H), 7.35 (d, J = 8.3 Hz, 1H), 7.24 (td, J = 7.7 Hz, J = 0.8 Hz, 1H), 6.87 (s, 1H), 3.94 (s, 3H). ¹³C NMR (CDCl₃, 75 MHz): 184.85, 166.63, 166.36, 147.82, 137.38, 136.71, 131.29, 130.69, 130.06, 124.93, 123.91, 121.42, 113.12, 111.36, 52.34.

(Z)-2-(2-bromobenzylidene)benzofuran-3(2H)-one (Entry 8)

8 was prepared per **Protocol 2** and yielded 39 mg (64%) as a yellow solid (MP = 134-140 °C). IR (neat, thin film): 2980, 1700, 1600, 1450, 780 cm⁻¹; ¹H NMR (CDCl₃, 300 MHz): 8.34 (dd, J = 7.9, 1.6 Hz, 1H), 7.82 (ddd, J = 7.6, 1.4, 0.6 Hz, 1H), 7.67 (m, 2H), 7.43 (m, 1H), 7.31 (d, J = 7.0 Hz, 2H), 7.23 (m, 2H). ¹³C NMR (CDCl₃, 125 MHz): 184.643, 166.261, 147.623, 137.216, 133.481, 132.454, 132.110, 130.856, 127.766, 126.643, 124.931, 123.810, 121.538, 113.027, 110.833.

(Z)-2-(3-bromobenzylidene)benzofuran-3(2H)-one (Entry 9)

9 was prepared per **Protocol 2** and yielded 24 mg (39%) as a solid (MP = 117-118 °C). IR (neat, thin film): ¹H NMR (CDCl₃, 500 MHz): 8.09 (s, 1H), 7.80 (t, *J* = 7.1 Hz, 2H), 7.67 (m, 1H), 7.51 (m, 1H), 7.36 (d, *J* = 8.6 Hz, 1H), 7.32 (t, *J* = 7.9 Hz, 1H), 7.24 (t, *J* = 7.5 Hz, 2H), 6.78 (s, 1H). ¹³C NMR (CDCl₃, 125 MHz): 184.75, 166.29, 147.40, 137.29, 134.43, 133.91, 132.73, 130.42, 130.10, 124.88, 123.84, 123.05, 121.48, 113.14, 111.14.

(Z)-2-(4-bromobenzylidene)benzofuran-3(2H)-one (Entry 10)

10 was prepared per **Protocol 2** and yielded 32 mg (53%) (MP = 152-158 °C). IR: 1714, 1655, 1601, 1487, 1474, 1460, 1298, 1205, 1186, 1128, 1112, 1099, 1071, 1008, 884, 821, 756, 697, 653, 626 cm⁻¹; ¹H NMR (500 MHz, CDCl₃): 6.81 (s, 1H), 7.24 (t, *J* = 7.45 Hz,

1H), 7.34 (d, *J* = 8 Hz, 1H), 7.58 (d, *J* = 8.6 Hz, 2H), 7.67 (t, *J* = 8.6 Hz, 1H), 7.78 (d, *J* = 8.6 Hz, 2H), 7.81 (d, *J* = 8.6 Hz, 1H); ¹³C NMR (125 MHz, CDCl₃): 111.47, 112.87, 121.39, 123.57, 124.21, 124.66, 131.03, 132.07, 132.61, 136.99, 146.99, 165.99, 184.58.

(Z)-2-(thiophen-2-ylmethylene)benzofuran-3(2H)-one (Entry 11)

11 was prepared per **Protocol 2** and yielded 16 mg (36%) (MP = 92-96 °C). IR n¹/₄1698, 1684, 1645, 1593, 1504, 1475, 1458, 1417, 1391, 1328, 1295, 1232, 1185, 1124, 1095, 992, 881, 846, 756, 710, 695, 625 cm⁻¹; ¹H NMR (500 MHz, CDCl₃): d¹/₄7.17 (t, *J* = 4 Hz, 1H), 7.20 (s, 1H), 7.24 (t, *J* = 7.45 Hz, 1H), 7.27 (s, 1H), 7.36 (d, *J* = 8.55 Hz, 1H), 7.57 (d, *J* = 3.45 Hz, 1H), 7.63 (d, *J* = 5.15 Hz, 1H), 7.66 (t, *J* = 8.55 Hz, 1H), 7.81 (d, *J* = 7.45 Hz, 1H); 13C NMR (500 MHz, CDCl₃): d¹/₄107.12, 112.92, 122.25, 123.52, 124.58, 128.09, 131.54, 133.17, 135.55, 136.71, 145.33, 165.65, 183.85.

(Z)-2-(furan-2-ylmethylene)benzofuran-3(2H)-one (Entry 12)

12 was prepared per Protocol 2 and yielded 16 mg (37%) as a brown solid (MP = 66-68 °C). IR (Neat, thin film): 1730, 1650, 1610, 1480, 1300, 1190, 1105, 850, 760cm⁻¹; ¹H NMR (500 MHz, CDCl₃): 6.56 (br s,1H), 6.85 (s, 1H), 7.10 (d, *J* = 3.45 Hz, 1H), 7.17 (t, *J* = 8.0 Hz, 1H), 7.27 (d, *J* = 8.6 Hz, 1H), 7.61-7.57 (m, 2H), 7.75 (d, *J*!48.6 Hz, 1H); 13C NMR (500 MHz, CDCl₃): d!4101.57, 112.81, 113.11, 117.24, 121.87, 123.39, 124.41, 136.62, 144.87, 145.34, 148.65, 165.59, 183.90.

(Z)-4-((4-chloro-3-oxobenzofuran-2(3H)-ylidene)methyl)benzonitrile (Entry 13)

13 was prepared per **Protocol 2** and yielded 42 mg (75%) as a yellow solid (MP = 230-232). IR (Neat, thin film): cm⁻¹; ¹H NMR (300 MHz, DMSO-D6) δ 8.12 (d, *J* = 8.5 Hz, 2H), 7.94 (d, *J* = 8.5 Hz, 2H), 7.90 (s, 1H), 7.77 (t, *J* = 8.1 Hz, 1H), 7.53 (d, *J* = 8.8 Hz, 1H), 7.33 (d, *J* = 8.4 Hz, 1H), 7.00 (s, 1H). ¹³C NMR (75 MHz, DMSO-D6) δ 181.68, 166.77, 147.81, 139.10, 137.02, 133.37, 132.13, 131.20, 125.68, 119.20, 118.36, 112.64, 112.17, 110.56.

(Z)-4-((5-chloro-3-oxobenzofuran-2(3H)-ylidene)methyl)benzonitrile (Entry 14)

14 was prepared per **Protocol 2** and yielded 29 mg (51%) as a yellow solid (213-215 °C). IR (Neat, thin film): cm⁻¹; ¹H NMR (300 MHz, DMSO-D6) δ 8.12 (d, *J* = 8.6 Hz, 2H), 7.93 (d, *J* = 8.5 Hz, 2H), 7.84 (s, 1H), 7.81 (d, *J* = 2.4 Hz, 1H), 7.60 (dd, *J* = 8.2, 1.1 Hz, 1H), 7.02 (s, 1H). ¹³C NMR (75 MHz, DMSO-D6): 183.29, 164.62, 148.31, 138.01, 136.90, 133.21, 129.06, 124.32, 122.57, 119.17, 116.01, 112.21, 110.8.

(Z)-4-((5-fluoro-3-oxobenzofuran-2(3H)-ylidene)methyl)benzonitrile (Entry 15)

15 was prepared per **Protocol 2** and yielded 39 mg (73%) as a yellow solid (MP = 200-202 °C). IR (Neat, thin film): cm⁻¹; ¹H NMR (300 MHz, ACETONE-D6) δ 8.19 (d, *J* = 8.3 Hz, 2H), 7.89 (d, *J* = 8.5 Hz, 2H), 7.63 (d, *J* = 2.7 Hz, 1H), 7.61 – 7.58 (m, 1H), 7.52 (ddd, *J* = 6.9, 2.6, 0.7 Hz, 1H), 6.92 (s, 1H). ¹³C NMR (75 MHz, DMSO-D6) δ 184.29, 162.91, 161.18, 157.97, 149.22, 149.06, 145.56, 139.32, 137.44, 133.80, 133.70, 132.71, 128.87, 126.39, 126.12, 126.05, 125.96, 125.65, 122.46, 122.35, 119.52, 116.08, 115.98, 113.41, 112.81, 111.42, 111.32, 110.99.

(Z)-4-((6-fluoro-3-oxobenzofuran-2(3H)-ylidene)methyl)benzonitrile (Entry 16)

16 was prepared per **Protocol 2** and yielded 28 mg (53%) as a yellow solid (MP = 190-193 °C). IR (Neat, thin film): cm⁻¹; ¹H NMR (300 MHz, DMSO-D6): 8.09 (d, J = 8.3 Hz, 2H), 7.93 (d, J = 8.5 Hz, 2H), 7.87 (dd, J = 8.5, 5.8 Hz, 1H), 7.55 (dd, J = 9.3, 2.1 Hz, 1H), 7.17 (ddd, J = 9.4, 8.5, 2.2 Hz, 1H), 6.99 (s, 1H). ¹³C NMR (75 MHz, DMSO-D6):

(Z)-4-((5-bromo-3-oxobenzofuran-2(3H)-ylidene)methyl)benzonitrile (Entry 17)

17 was prepared per Protocol 2 and yielded 28 mg (40%) as a yellow solid. (Decomp =

170 °C). IR (neat, thin film): 3000, 2200, 1600-1700 cm⁻¹; ¹H NMR (CDCl₃, 300 MHz): 7.94 (m, 3H), 7.76 (dd, *J* = 8.90, 2.43 Hz, 1H), 7.73 (d, *J* = 8.58 Hz, 2H), 7.25 (m, 1H), 6.83 (d, *J* = 6.54Hz, 1H); ¹³C NMR (125 MHz, CDCl₃) 183.07, 164.86, 147.97, 139.83, 132.62, 132.57, 131.75, 131.61, 127.72, 125.07, 124.18, 114.85, 113.06, 111.13.

Generic Protocol for analysis of reaction kinetics of Isoniazid and carbonyls via gas chromatography

To a 2 mL autosampler vial was added 1 mL of a 0.05 M carbonyl solution containing a known concentration of standard as indicated by Table 2. A small stir bar was then added, and the vial sealed. The sample was then analyzed across 10 injections (11 for aldehydes) with X seconds between injections as indicated by Table 2. All runs were isothermal. Ten molar equivalents of Isoniazid and 10 molar equivalents of neutral alumina were added to the reaction mixture approximately 120 seconds after the first injection. The reaction mixture was stirred at 600 RPM in-between injections.

	Temp. °C	Run Time (min)	Standard	Time between injections (s)
Benzaldehyde	90	2.98	Decane	240
4-Nitrobenzaldehyde	120	2.98	Decane	240
4-Cyanobenzaldehyde	120	2.98	Decane	240
4-Bromobenzaldehyde	120	2.98	Decane	240
4-Methylbenzaldehyde	100	2.98	Decane	240
4-Methoxybenzaldehyde	130	2.98	Decane	240
3-Methoxybenzaldehyde	120	2.98	Decane	240
2-Methoxybenzaldehyde	120	2.98	Decane	240
Trans-cinnamaldehdye	125	2.98	Decane	240
Dihydrocinnamaldehyde	130	2.98	Decane	240
Thiophene-2-carboxaldehyde	80	2.98	Decane	240
Furan-3-carboxaldehyde	80	2.98	Decane	240
2-Octanone	120	2.98	Dodecane	2010
Cyclohexanone	80	2.98	Decane	240
Acetophenone	100	2.98	Decane	2010
Benzophenone	150	6.98	Dodecane	2010
Ethyl Acetoacetate	80	2.98	Decane	720
Butyl acetate	75	2.98	Decane	2010
Methyl benzoate	100	2.98	Decane	2010

Table 2: Sample conditions for analysis of reaction kinetics of Isoniazid and carbonyls via gas chromatography

Protocol for determination of rate constant via linear regression

The concentration of aldehyde was determined according to the equations below. The natural log of the concentration was then plotted against time and linear regression calculated using the method of least squares to yield the rate constant.

Percent carbonyl remaining at t_x

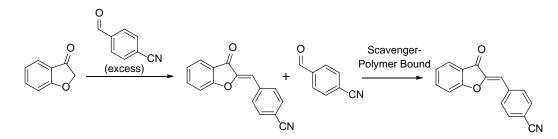
$$= \left(\frac{Area\ Carbonyl\ at\ t_x}{Area\ Standard\ at\ t_x}\right) \div \left(\frac{Area\ Carbonyl\ at\ t_0}{Area\ Standard\ at\ t_0}\right) \times 100\%$$

Concentration of carbonyl at $t_x =$ Percent carbonyl remaining at $t_x \times 0.05$ M

CHAPTER 3: RESULTS AND DISCUSSION

Due to the lack of a ubiquitous chemical handle and the resource intensive process of developing a traceless synthesis or a supported reagent, a scavenger-based approach appeared optimal for aurone synthesis. Aldehyde scavenging is known, and it would certainly be expected that aldehydes would react more rapidly with a scavenger than the enone-type functionality present in the product aurones. In addition, we had previously noted that the use of an excess of aldehyde under typical condensation reaction conditions generates a mixture at the end of only the desired aurone, unreacted aldehyde, and water. Thus, if excess aldehyde could be used and then readily removed, the desired aurone should be left in sufficient purity for direct use without further purification. Armed with this information, representative known, commercially available supported scavengers were explored. Reported scavengers have typically been nucleophilic amine- or hydrazine-based functional groups attached to a polystyrene support.⁴¹ Three of these were surveyed for their use in a representative aurone-forming reaction. (Table 3)

Table 3: Comparison of the efficiency and cost of several aldehyde scavengers.



Entry	Scavenger	grams used ^a	Yield (%)	Purity (%) ^b	USD/gram ^c
1A	p-toluenesulfonyl hydrazide polymer bound	0.200	20 ^d	>95	18
1B	Sulfonyl amide – polymer bound	0.266	72	>95	43
1C	Ethylenediamine – polymer bound	0.100	72	>95	12
1D	Isoniazid	0.055	70	>95	0.22

a) Grams used was determined by loading level. b) Purity was assessed by NMRc) USD/gram was obtained from Sigma-Aldrich website. d) Initial scavenging reactions utilizing p-toluenesulfonyl hydrazide polymer bound resulted in imine 2.

In this reaction, 3-coumaranone was reacted with 2 equivalents of 4cyanobenzaldehyde in neutral alumina and dichloromethane, reaction conditions first reported by Varma.¹⁸ After 12 hours 2 equivalents of scavenger (with regards to the benzofuranone) was added and the mixture was allowed to react for a further 12 hours. The reaction was then filtered and dried to yield the product. Two of these three afforded the desired aurone in high purity and reasonable yield after addition of the resin, stirring overnight and then removal of the resin via filtration. Interestingly, the other resin (p-toluene sulfonyl hydrazide, polymer bound) failed to afford any of the desired aurone in the first trial, but instead afforded a material that we believe to be the corresponding imine **2**. Curiously, when this reaction was repeated at a later date it did yield the aurone product. The mechanism and source of this side reaction are not clear and are under further study, but it was cleanly reproducible.

While successful, these polymers supported resins are not inexpensive and require very significant excesses in order to obtain consistent purity of the final products.¹¹ What we desired was an equally effective scavenger that would be more cost-effective and perhaps require less scavenger. Recognizing that much of the weight in a polymer supported scavenger is in the polymer portion and that imperfect swelling often times is responsible for the use of large molar excesses of the scavenger, it also appeared that an easily separable, soluble scavenger would offer certain advantages. Oliviera's recently reported use of isonicotonic acid hydrazide (Isoniazid) loaded on an Amberlyst resin as a scavenger for aldehydes and ketones caught our interest.⁴⁵ While very little was explored in this paper beyond the ability of this resin loaded scavenger to remove a few simple aldehydes and ketones from solution, it appeared to be a highly promising option. At the same time, loading this scavenger on a resin (support) appeared to be unnecessary as the loading relied on acid/base chemistry rather than covalent bonding. As a result, it was presumed that the Knovenagel condensation could be performed, Isoniazid added as a soluble scavenger and then removed, along with the scavenged aldehyde, by simpler acid/base chemistry using a dilute aqueous hydrochloric acid wash as depicted in Figure 14. Unfortunately, tests of Isoniazid's solubility showed it to be insoluble in

everything except the most polar solvents (DMSO, DMF, and H_2O). The reaction was run in DCM regardless of Isoniazid's solubility under the assumption that the reaction would still occur under heterogenous conditions at a rate greater than that of polymer bound scavengers. As noted by Zhen et al., heterogenous scavengers on the submicrometer scale can form quasi-homogeneous mixtures when dispersed in solution.³³

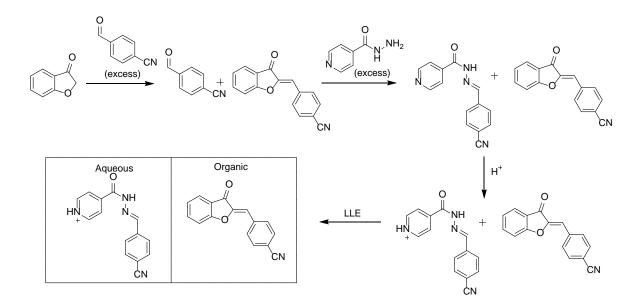


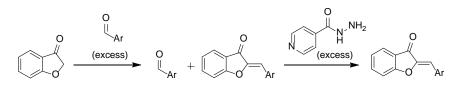
Figure 15: Proposed approach for aurone synthesis utilizing Isoniazid as an aldehdye scavenger

Thus, following the condensation reaction, Isoniazid was added, and the mixture stirred overnight. Extraction with dilute hydrochloric acid was sufficient to remove the Isoniazid and scavenged aldehyde and leave the precipitated aurone in high purity and a yield similar to that obtained with the polymer-supported scavengers. (Table 3, entry 4) It is important to note that this high yield, as well as

control reactions between Isoniazid and the aurone product have demonstrated excellent selectivity for reaction with aldehydes and not the aurone product, even with the prolonged reaction times employed for the scavenging stage of this sequence.

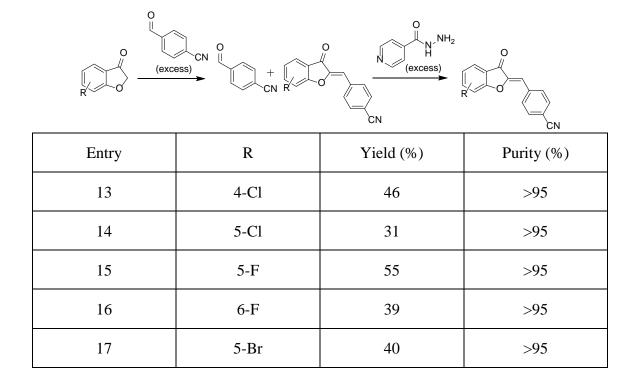
Armed with this initial success, a range of aldehydes were subjected to the same reaction and scavenging conditions in order to determine the influence of electronic and steric factors of the aldehyde on the scavenging step. As can be seen from Table 4, in all but one case, the aurones were obtained in >95% purity as accessed by ¹H NMR. Isolated yields were more variable but were all acceptable for the small scale upon which these reactions were performed and provided ample material for multiple biological screening campaigns. Although the benzofuranone was not expected to have any particular influence on the scavenging, a smaller series of modifications of that portion were also explored (Table 5).

Table 3: Synthesis and purification using Isonazid of aurones utilizing various aldehydes.



Entry	Ar	Yield (%)	Purity (%)
3	4-trifluoromethyl phenyl	44	>95
4	4-dimethylamino phenyl	25	>95
5	4-methyl phenyl	57	>95
6	4-methoxy phenyl	61	>95
7	4-methyl carboxylate phenyl	49	77
8	2-bromo phenyl	64	>95
9	3-bromo phenyl	39	>95
10	4-bromo phenyl	53	>95
11	2-thiophenyl	36	>95
12	2-furyl	37	>95

Table 4: Synthesis and purification using Isonazid of aurones utilizing various benzofuranones.



Results of these syntheses shows aurones synthesized via Knovenagel condensations can rapidly and efficiently be purified via scavenging of unreacted aldehyde by Isoniazid. While some yields are lower, they still provide enough material for multiple biological screenings and could doubtless be improved by increasing the scale of the reactions. While confident that Isoniazid is an excellent method for the purification of aurones, the kinetics of the hydrazone formation from the reaction of Isoniazid with various aldehydes, ketones, and esters was analyzed in order to determine the selectivity of Isoniazid. Results of these analyses can help determine if Isoniazid could be incorporated into the purification of other reactions without scavenging out the product.

Kinetics of hydrazone formation between various carbonyls and Isoniazid using pseudo first order reaction conditions was measured by the consumption of carbonyl as monitored via a gas chromatograph equipped with a flame ionization detector (GC-FID). Initial reaction conditions were composed of a 0.5 M solution of carbonyl to which 10 molar equivalents of Isoniazid was added 120 seconds after the first injection. The results of these conditions employing benzaldehyde as the carbonyl showed a negligible consumption of aldehyde. This conflicted with the data from the aurone syntheses which showed Isoniazid to be an efficient scavenger of aldehydes. The reaction conditions were then modified to include 10 molar equivalents of neutral alumina (with respect to the carbonyl) to be added to the reaction mixture at the same time as the Isoniazid. The analysis of benzaldehyde using these modified reaction conditions showed a substantial increase in reaction rate, going from a negligible change in aldehyde concentration at 30 minutes to 50% of the aldehyde being consumed within 30 minutes.

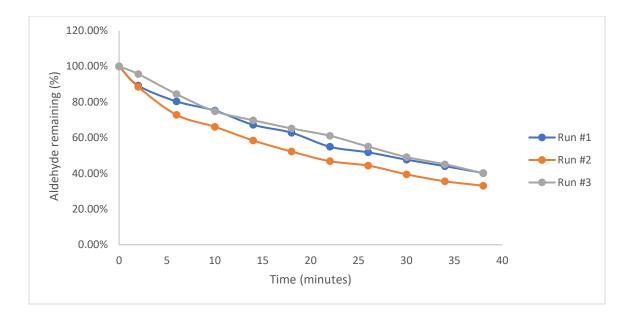


Figure 16: Percent decrease in concentration of benzaldehyde as it is consumed by Isoniazid.

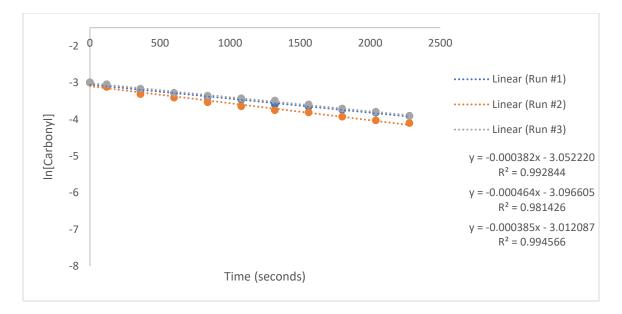


Figure 17: Linear regression of the decrease in concentration of benzaldehyde as it is consumed by Isoniazid.

To determine the effect of electron withdrawing groups on the reaction rate, 4nitrobenzaldehdye and 4-cyanobenzaldehdye were analyzed via these same reaction conditions. As expected theses analyses showed a substantial increase in reaction rate which conforms with the accepted trends of nucleophilic acyl substitution, that electron withdrawing groups increase the electrophilicity of the carbonyl making it more susceptible to attack by nucleophiles. Additionally, the 4-nitrobenzaldehdye which has a stronger electron withdrawing group has a rate two times greater than 4-cyanobenzaldehyde. Unfortunately, the limitations of using GC-FID in analyzing these reactions can be seen in the graphs for 4-nitrobenzaldehyde; the initial rate of reaction is so great that almost 50% of the aldehyde is consumed within the first 120 seconds of the reaction. By the time enough data has been collected to calculate the rate constant the reaction rate has already slowed from the initial rate. To more accurately measure the rate constant for 4-nitrobenzaldehyde the method would need to be modified to take measurements faster than every 240 seconds; this would most likely necessitate a change in instrumentation such as switching to in-situ IR.

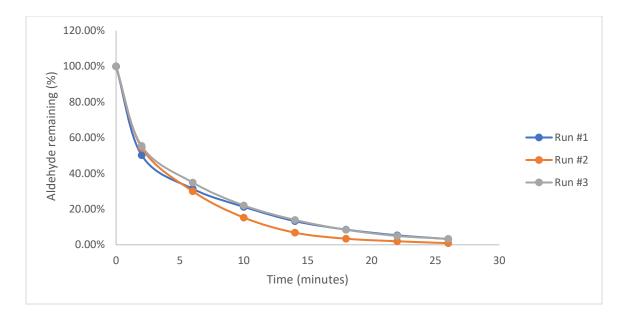


Figure 18: Percent decrease in concentration of 4-nitrobenzaldehyde as it is consumed by



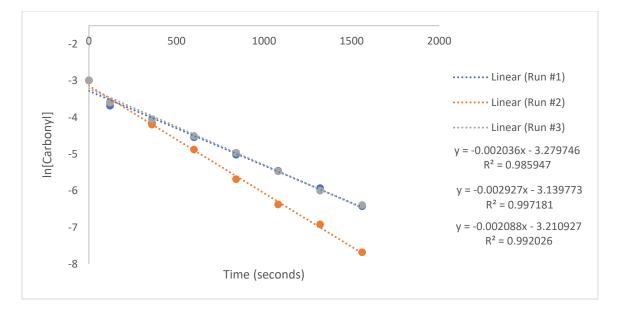


Figure 19: Linear regression of the decrease in concentration of 4-nitrobenzaldehyde as it is consumed by Isoniazid.

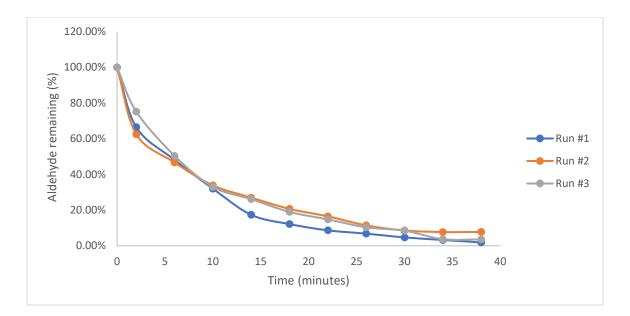


Figure 20: Percent decrease in concentration of 4-cyanobenzaldehyde as it is consumed by



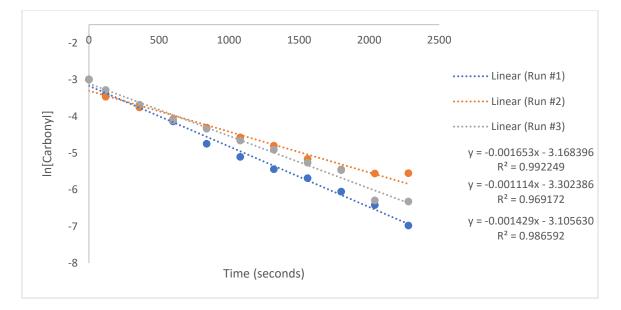


Figure 21: Linear regression of the decrease in concentration of 4-cyanobenzaldehyde as it is consumed by Isoniazid.

Additionally, the reaction rate for 4-bromobenzaldehdye was analyzed and the rate constant was determined to be -0.000584 s⁻¹ \pm 0.000088 only slightly higher (faster) than

the rate constant calculated for benzaldehyde. The slower rate of reaction for 4bromobenzaldehdye was expected as the bromo group is a weaker electron withdrawing group than the nitro and cyano functional groups; also due to the use of the para orientation bromobenzaldehyde the aldehyde experiences greater resonance support than the nitro and cyano substituted aldehydes.

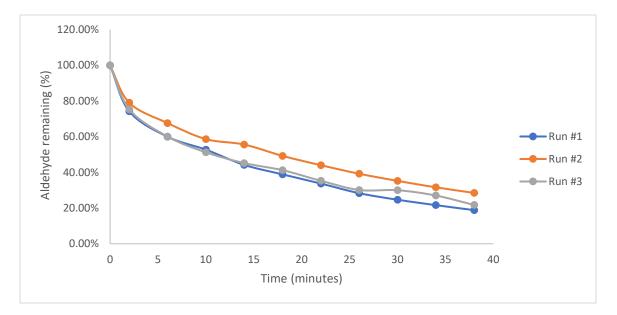


Figure 22: Percent decrease in concentration of 4-bromobenzaldehyde as it is consumed by Isoniazid.

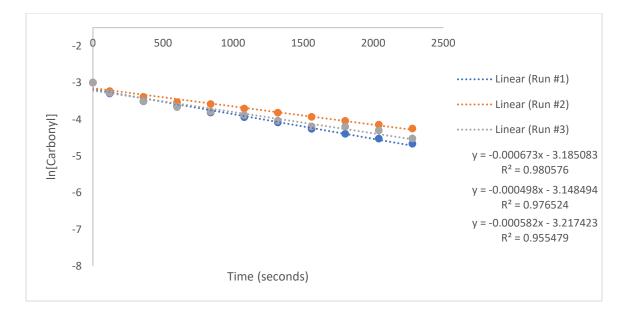


Figure 23: Linear regression of the decrease in concentration of 4-bromobenzaldehyde as it is consumed by Isoniazid.

4-tolualdehyde and 4-methoxybenzaldehyde were also tested to determine the effect of electron donating groups on the rate of hydrazone formation. The rate of reaction for 4-tolualdehye was significantly slower than aldehydes containing EWGs and was slightly slower than benzaldehyde which conforms with the expected results. Interestingly 4-methoxybenzaldehyde which contains a stronger electron donating group than 4-tolualdehyde, possesses a higher rate of reaction which is even slightly greater than that of benzaldehyde. While the data for these analyses is of slightly lower quality based on R² values, the triplicate runs showed a relatively consistent value for the rate constant, -0.000468 s⁻¹ \pm 0.000054. Additionally, while the graphs of the percent decrease in aldehyde for these two compounds do possess some irregularities they qualitatively show that Isoniazid is an effective scavenger.

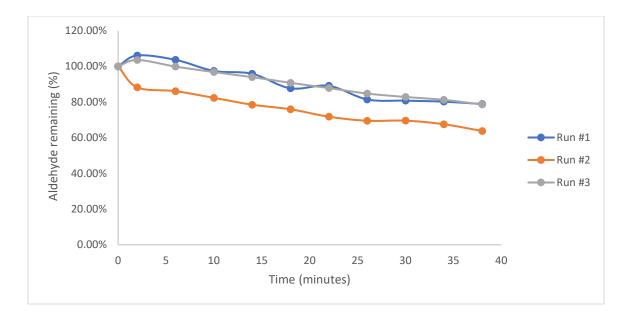
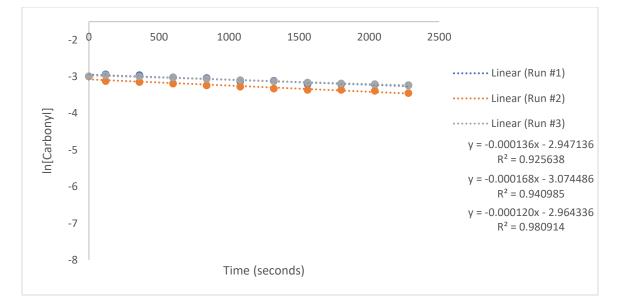
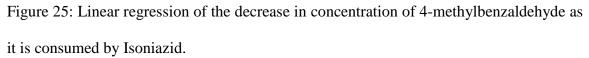


Figure 24: Percent decrease in concentration of 4-methylbenzaldehyde as it is consumed

by Isoniazid.





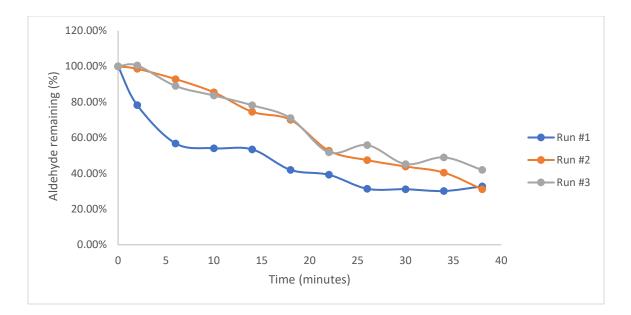


Figure 26: Percent decrease in concentration of 4-methoxybenzaldehyde as it is consumed

by Isoniazid.

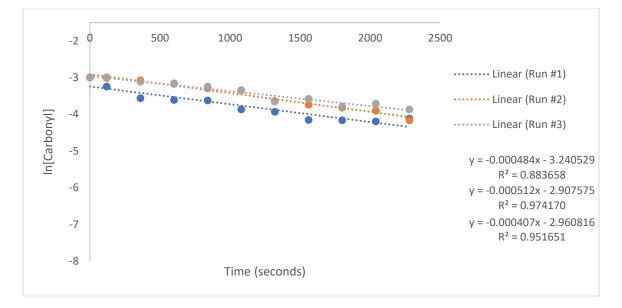


Figure 27: Linear regression of the decrease in concentration of 4-methoxybenzaldehyde as it is consumed by Isoniazid.

In addition to 4-methoxybenzaldehdye, the ortho and meta isomers were also analyzed to determine the effect of the ortho, meta, para relationship between substituent and aldehyde on the rate of reaction. Interestingly, the ortho isomer had the fastest rate of reaction by a large margin, which conflicted with the expected results, although there was a wide margin of error between runs. Further analysis of the ortho isomer is needed to confirm these results; if these results are accurate the most likely explanation is that some type of coordination is occurring which serves to accelerate the rate of reaction. The meta isomer was slightly faster than the para isomer which would be expected as the donating methoxy group is not in direct resonance with the carbonyl.

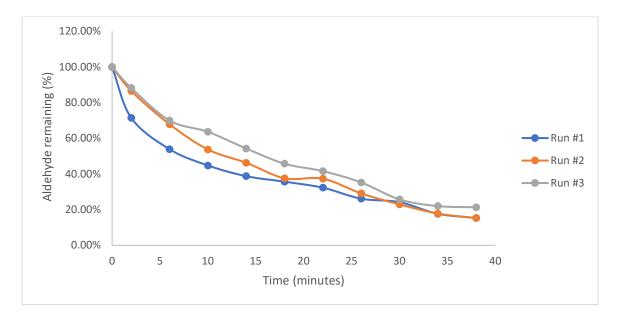


Figure 28: Percent decrease in concentration of 3-methoxybenzaldehyde as it is consumed by Isoniazid.

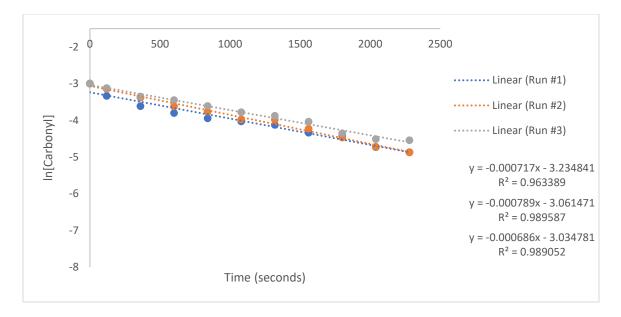


Figure 29: Linear regression of the decrease in concentration of 3-methoxybenzaldehyde as it is consumed by Isoniazid.

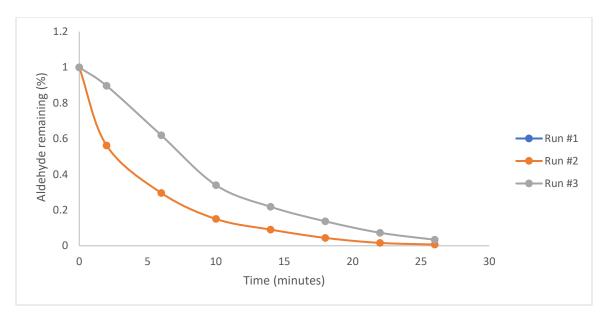


Figure 30: Percent decrease in concentration of 2-methoxybenzaldehyde as it is consumed by Isoniazid.

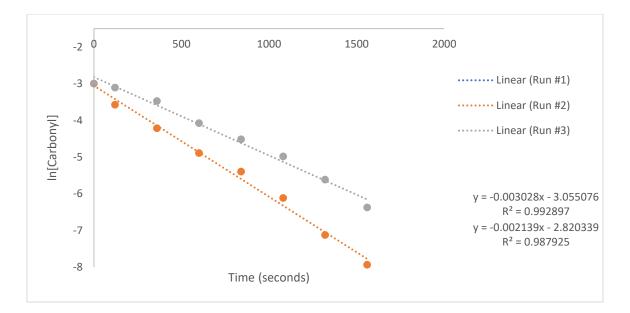


Figure 31: Linear regression of the decrease in concentration of 2-methoxybenzaldehyde as it is consumed by Isoniazid.

Trans-cinnamaldehyde and dihydrocinnamaldehdye were analyzed to determine the rate of hydrazine formation for alkenyl and aliphatic aldehydes. As expected the rate of reaction for these aldehydes was significantly higher than their aryl counterparts due to decreased steric hindrance and the lack of resonance stabilization on the aldehyde for dihydrocinnamaldehyde. Unfortunately, the rate constants derived from this data are inherently unreliable as our methodology lacks the ability to take aliquots in a sufficiently short amount of time before the rate changes. It is obvious though that the rate of reaction for aliphatic aldehydes is much greater than that of aryl aldehydes.

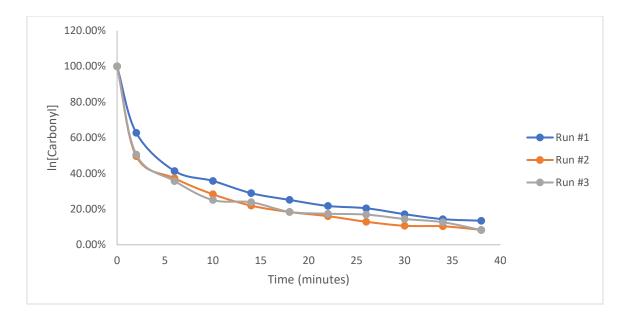


Figure 32: Percent decrease in concentration of trans-cinnamaldehdye as it is consumed by

Isoniazid.

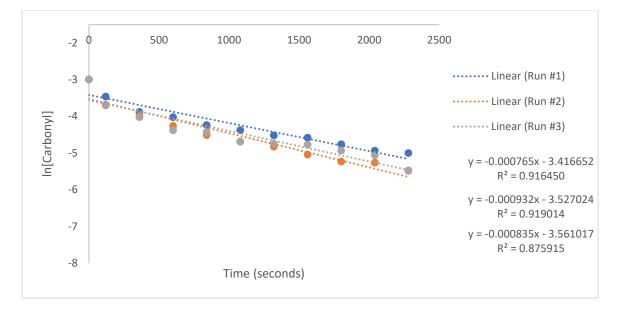


Figure 33: Linear regression of the decrease in concentration of trans-cinnamaldehyde as it is consumed by Isoniazid.

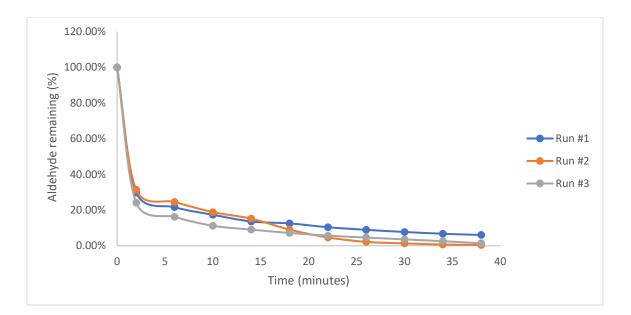


Figure 34: Percent decrease in concentration of dihydrocinnamaldehdye as it is consumed



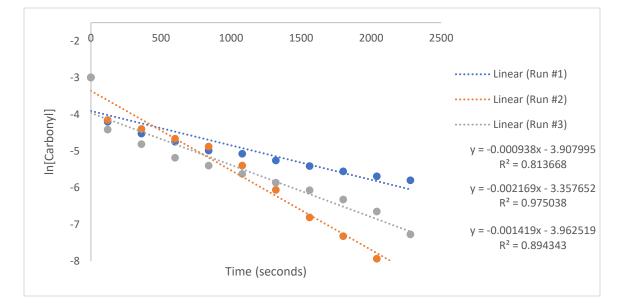


Figure 35: Linear regression of the decrease in concentration of dihydrocinnamaldehyde as it is consumed by Isoniazid.

Although it was not expected that Isoniazid would have difficulty reacting with heteroaromatics, thiophene-2-carboxaldehdye and furan-3-carboxaldehdye were analyzed.

The furan possessed a much greater reaction rate than the thiophene which had a rate comparable to that of benzene. This is likely due to the highly electronegative oxygen having an inductive effect and forming less stable resonance structures.

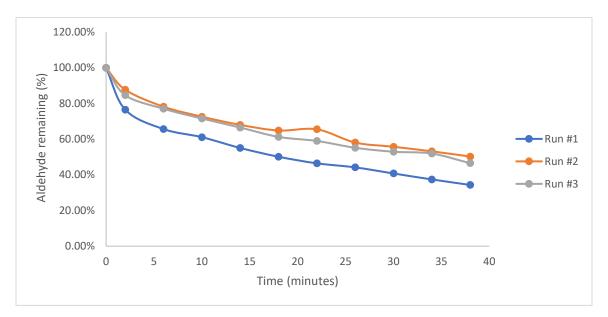


Figure 36: Percent decrease in concentration of thiophene-2-carboxaldehyde as it is consumed by Isoniazid.

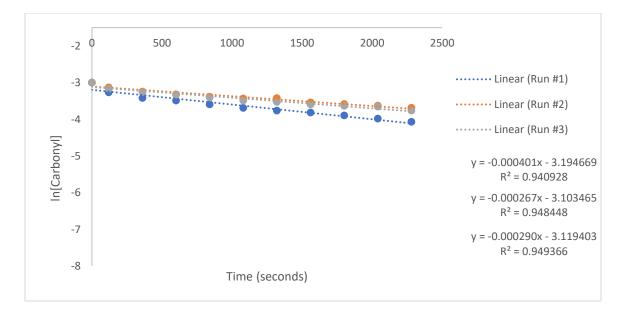


Figure 37: Linear regression of the decrease in concentration of thiophene-2carboxaldehyde as it is consumed by Isoniazid.

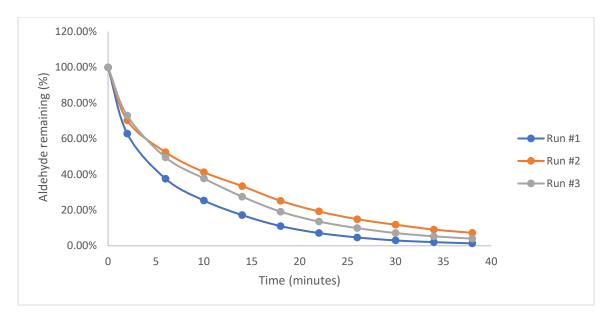


Figure 38: Percent decrease in concentration of furan-3-carboxaldehyde as it is consumed by Isoniazid.

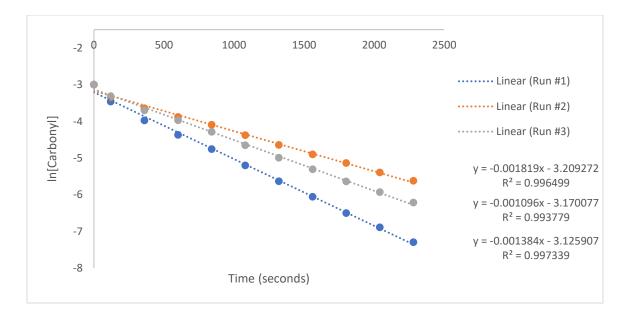


Figure 39: Linear regression of the decrease in concentration of furan-3-carboxaldehyde as it is consumed by Isoniazid.

To test the selectivity of Isoniazid for aldehydes over ketones and esters, four ketones, two esters and ethyl acetoacetate, a hybrid containing both ketone and ester functional groups, were analyzed. The four ketones analyzed were 2-octanone, cyclohexanone, acetophenone, and benzophenone. Due to the expected slower reactivity of ketones and esters these samples were initially analyzed over a larger length of time (1 injection approximately every 30 minutes).

Hydrazone formation was observed for reaction of 2-octanone with Isoniazid but with a rate constant of -0.00004363 s⁻¹ \pm 0.00000548 the reaction rate is approximately ten times slower than that of benzaldehyde and Isoniazid. Acetophenone and benzophenone both showed a negligible decrease in carbonyl concentration. Cyclohexanone and ethyl acetoacetate both showed much higher reaction rates and the reaction conditions were modified to increase the sampling rate. Cyclohexanone was analyzed on the same time scale as aldehydes, the rate constant was calculated as -0.00084648 s⁻¹ \pm 0.00001779, which is more than twice as high as that of benzaldehyde and Isoniazid. Cyclohexanone's faster rate of reaction is likely due to the lack of resonance support for the carbonyl and that in the chair conformer the carbonyl has less steric hindrance than that of 2-octanone and some of the other carbonyls analyzed in this project. The methodology for the analysis of ethyl acetoacetate was modified so that an aliquot was injected every 12 minutes. Data from theses analyses shows that the reaction between ethyl acetoacetate and Isoniazid while faster than most of the ketones analyzed has a slightly slower rate of reaction than most of the aldehydes tested. The increased reaction rate is due to a lack of conjugation and the inductive effect of the ester. Analysis of butyl acetate and methyl benzoate showed no decrease in carbonyl concentration.

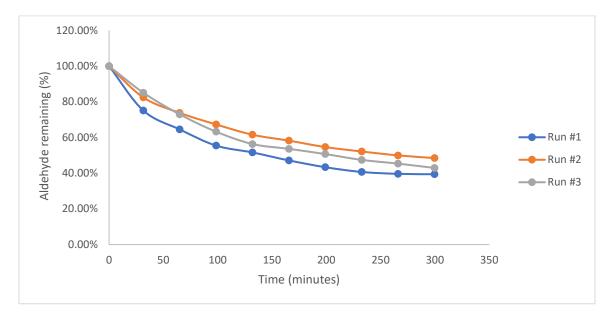


Figure 40: Percent decrease in concentration of 2-octanone as it is consumed by Isoniazid.

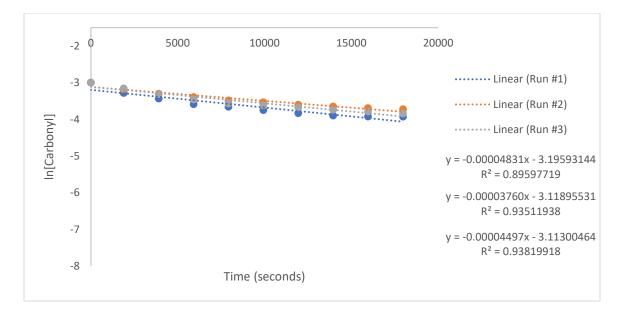


Figure 41: Linear regression of the decrease in concentration of 2-octanone as it is consumed by Isoniazid.

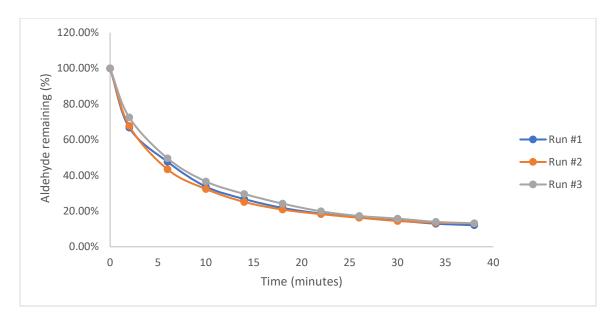


Figure 42: Percent decrease in concentration of cyclohexanone as it is consumed by Isoniazid.

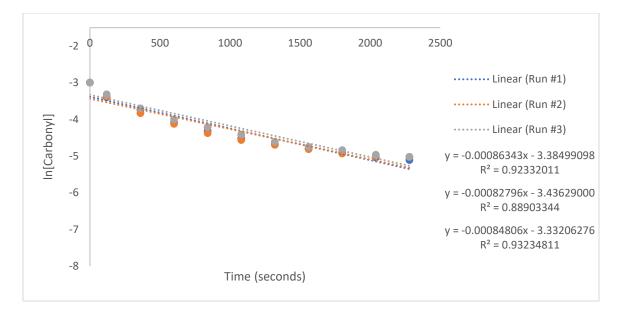


Figure 43: Linear regression of the decrease in concentration of cyclohexanone as it is consumed by Isoniazid.

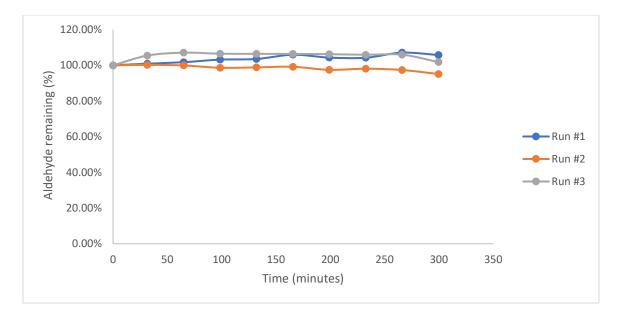


Figure 44: Percent decrease in concentration of acetopheone as it is consumed by Isoniazid.

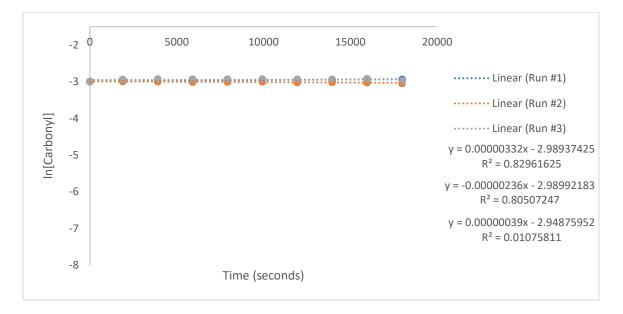


Figure 45: Linear regression of the decrease in concentration of acetophenone as it is consumed by Isoniazid.

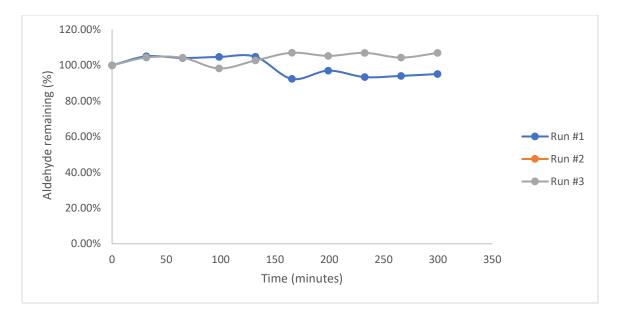


Figure 46: Percent decrease in concentration of benzophenone as it is consumed by Isoniazid.

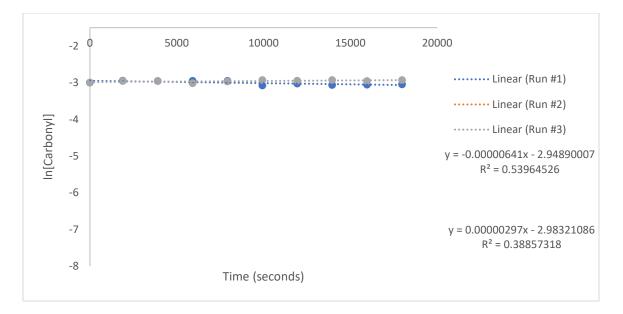


Figure 47: Linear regression of the decrease in concentration of benzophenone as it is consumed by Isoniazid

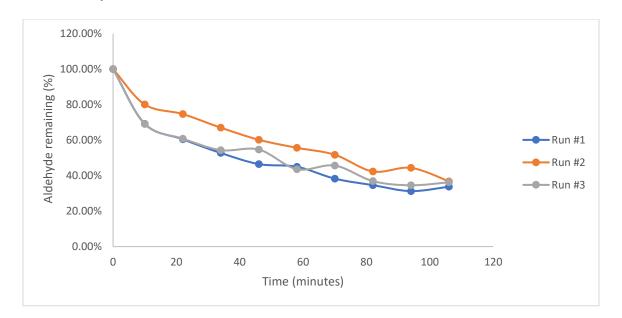


Figure 48: Percent decrease in concentration of ethyl acetoacetate as it is consumed by Isoniazid.

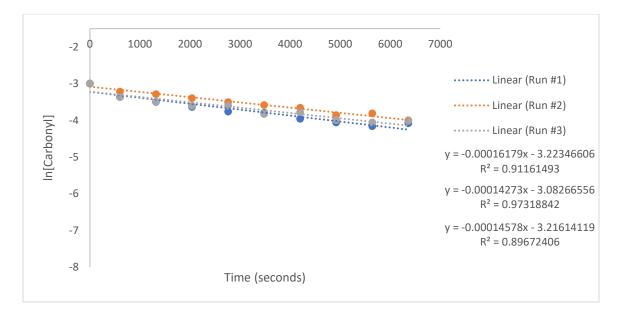


Figure 49: Linear regression of the decrease in concentration of ethyl acetoacetate as it is consumed by Isoniazid.

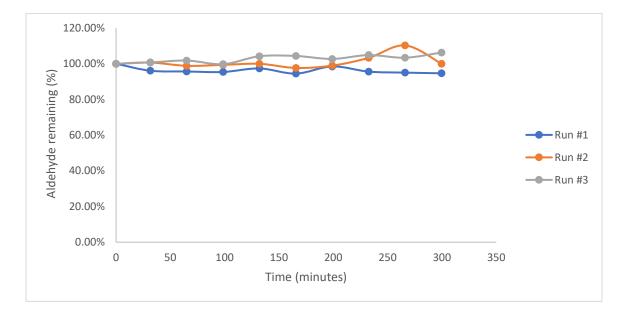


Figure 50: Percent decrease in concentration of butyl acetate as it is consumed by Isoniazid.

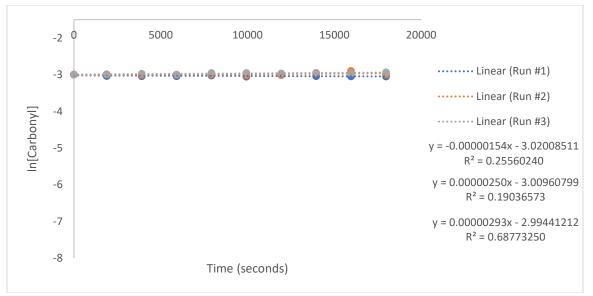


Figure 51: Linear regression of the decrease in concentration of butyl acetate as it is

consumed by Isoniazid

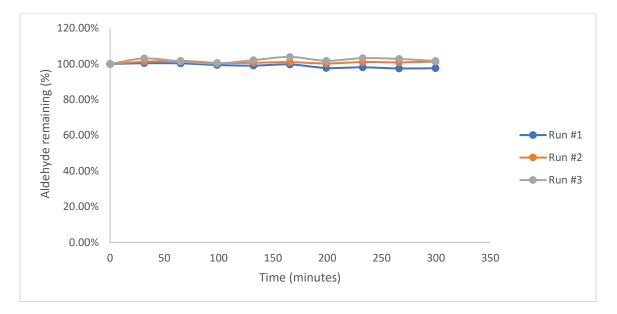


Figure 52: Percent decrease in concentration of methyl benzoate as it is consumed by Isoniazid.

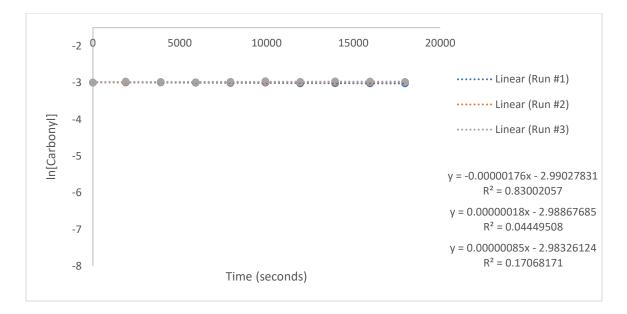


Figure 53: Linear regression of the decrease in concentration of methyl benzoate as it is consumed by Isoniazid.

Carbonyl	Mean Rate Constant k (s ⁻¹)	k Carbonyl∕ k Benzaldehyde	Mean R ²
Benzaldehyde	$4.1 \times 10^{-4} \pm 5 \times 10^{-5}$	1.00	$0.9896 \pm 7 imes 10^{-3}$
4-Nitrobenzaldehyde	$2.4 \times 10^{-3} \pm 5 \times 10^{-4}$	5.73	$0.9917 \pm 6 imes 10^{-3}$
4-Cyanobenzaldehyde	$1.4 \times 10^{-3} \pm 3 \times 10^{-4}$	3.41	$0.9827\pm1\times10^{\text{-}2}$
4-Bromobenzaldehyde	$5.8 imes 10^{-4} \pm 9 imes 10^{-5}$	1.42	$0.9709 \pm 1 imes 10^{-2}$
4-Methylbenzaldehyde	$1.4 imes 10^{-4} \pm 2 imes 10^{-5}$	0.34	$0.9492 \pm 3 imes 10^{-2}$
4-Methoxy benzaldehyde	$4.7 \times 10^{-4} \pm 5 \times 10^{-5}$	1.14	$0.9365 \pm 5 imes 10^{-2}$
3-Methoxy benzaldehyde	$7.3 imes 10^{-4} \pm 5 imes 10^{-5}$	1.78	$0.9807\pm2\times10^{\text{-}2}$
2-Methoxy benzaldehyde	$2.6 \times 10^{-3} \pm 6 \times 10^{-4}$	6.30	$0.9904 \pm 3 imes 10^{-3}$
trans-Cinnamaldehyde	$8.4 imes 10^{-4} \pm 8 imes 10^{-5}$	2.06	$0.9038 \pm 2 imes 10^{-2}$
Dihydrocinnamaldehyde	$1.5 \times 10^{-3} \pm 6 \times 10^{-4}$	3.68	$0.8943 \pm 8 imes 10^{-2}$
Thiophene-2- carboxaldehyde	$3.2 \times 10^{-4} \pm 7 \times 10^{-5}$	0.78	$0.9463 \pm 5 imes 10^{-3}$
Furan-3-carboxaldehyde	$1.4 imes 10^{-3} \pm 4 imes 10^{-4}$	3.50	$0.9959 \pm 2 \times 10^{-2}$
2-Octanone	$4.4 imes 10^{-5} \pm 6 imes 10^{-6}$	0.11	$0.9231 \pm 2 imes 10^{-2}$
Cyclohexanone	$8.5 imes 10^{-4} \pm 2 imes 10^{-5}$	2.06	$0.9149 \pm 2 \times 10^{\text{-}2}$
Acetophenone	$4.5 imes 10^{-7} \pm 3 imes 10^{-6}$	0.00	0.5484 ± 0.5
Benzophenone	$4.7 \times 10^{-6} \pm 2 \times 10^{-6}$	0.01	0.4641 ± 0.1
Ethyl Acetoacetate	$1.5 imes 10^{-4} \pm 1 imes 10^{-5}$	0.37	$0.9272 \pm 4 \times 10^{-2}$
Butyl acetate	$1.3 \times 10^{-6} \pm 3 \times 10^{-6}$	0.00	0.3779 ± 0.3
Methyl benzoate	$2.4 imes 10^{-7} \pm 1 imes 10^{-6}$	0.00	0.3484 ± 0.4

Table 5: Rate constants and R^2 values for reaction of carbonyls with Isonazid.

These analyses indicate that Isoniazid has a high rate of hydrazone formation when reacted with aldehydes and that while not always significantly selective for aldehydes over aliphatic ketones it is selective for aldehydes over aryl ketones due to the carbonyl of such ketones being deactivated via resonance. Additionally, reaction of Isoniazid is more highly selective for reaction with aldehydes than with esters and is likely the same for carboxylic acids. These results show that Isoniazid is a fast and efficient scavenger of aldehydes and that due to its selectivity for aldehydes over aryl ketones, esters, and likely carboxylic acids, it could be employed in a multitude of reactions.

CHAPTER 4: CONCLUSION

In conclusion, this scavenging synthesis has greatly increased our ability to synthesize new aurone analogs in a timely manner. Now, the preparation of new collections of 40+ compounds can be realistically accomplished in a matter of days, rather than the weeks that were required using conventional purification. It is fully anticipated that this same scavenging approach can be applied to many other reactions of the highly versatile aldehyde functional group, thereby enabling convenient and rapid access to arrays generated by these reactions as well. Further studies are necessary to identify the role of neutral alumina in the reaction. Additionally, optimization of the reaction conditions for the Knovenagel condensation would increase the ease and speed at which aurones could be prepared.

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Appendix

Table of Contents

NMR Spectra:

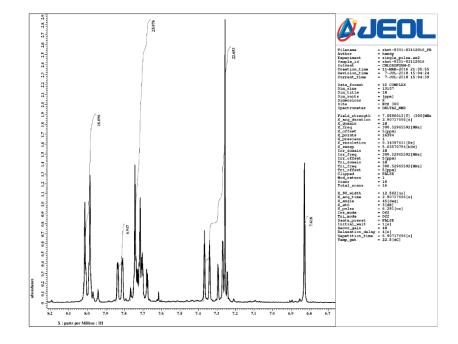
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Entry 3	71
Entry 4	72
Entry 5	73
Entry 7	74
Entry 8	75
Entry 9	76
Entry 12	77
Entry 13	78
Entry 14	79
Entry 15	80
Entry 16	81
Entry 17	82
GC-FID Data:	
Benzaldehyde	83
4-Nitrobenzaldehyde	117
4-Cyanobenzaldehyde	151

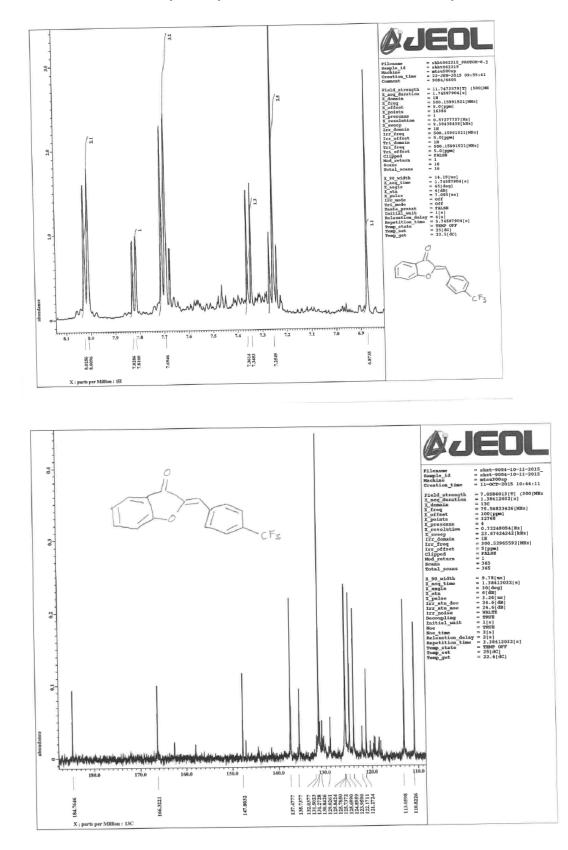
4-Bromobenzaldehyde	184
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4-Methoxy benzaldehyde	250
3-Methoxy benzaldehyde	283
2-Methoxy benzaldehyde	316
trans-Cinnamaldehdye	338
Dihydrocinnamaldehyde	371
Thiophene-2-carboxaldehyde	404
Furan-3-carboxaldehyde	444
2-Octanone	477
Cyclohexanone	577
Acetophenone	537
Benzophenone	567
Ethyl Acetoacetate	596
Butyl Acetate	626
Methyl Benzoate	656

Entries 1A-1D, 10, 11, and 12 have been previously reported by our group in:

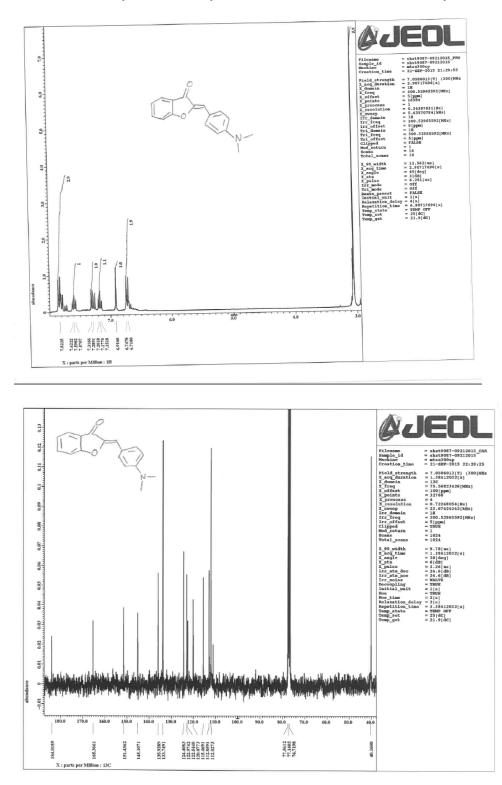
Hawkins, I., & Handy, S. T. (2013). Synthesis of aurones under neutral conditions using a deep eutectic solvent. Tetrahedron, 69(44), 9200–9204.

(Z)-4-((3-iminobenzofuran-2(3H)-ylidene)methyl)benzonitrile (Entry 2)

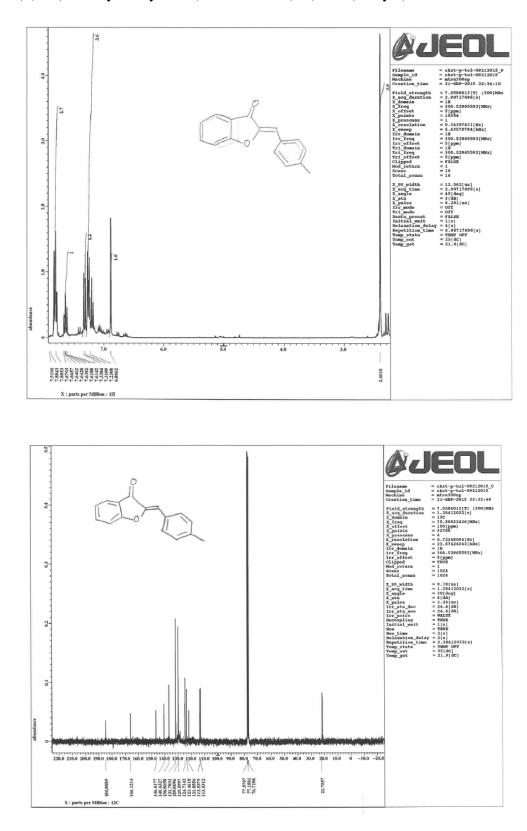




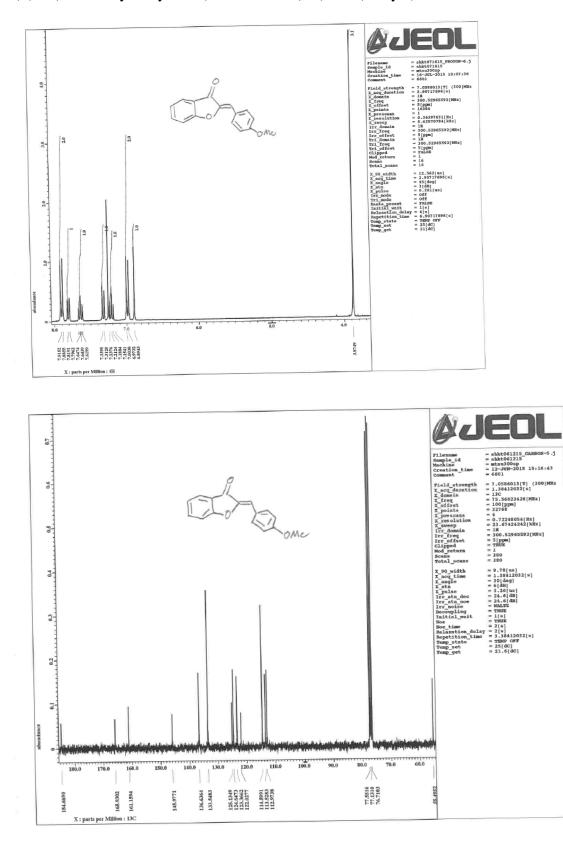
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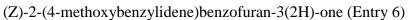


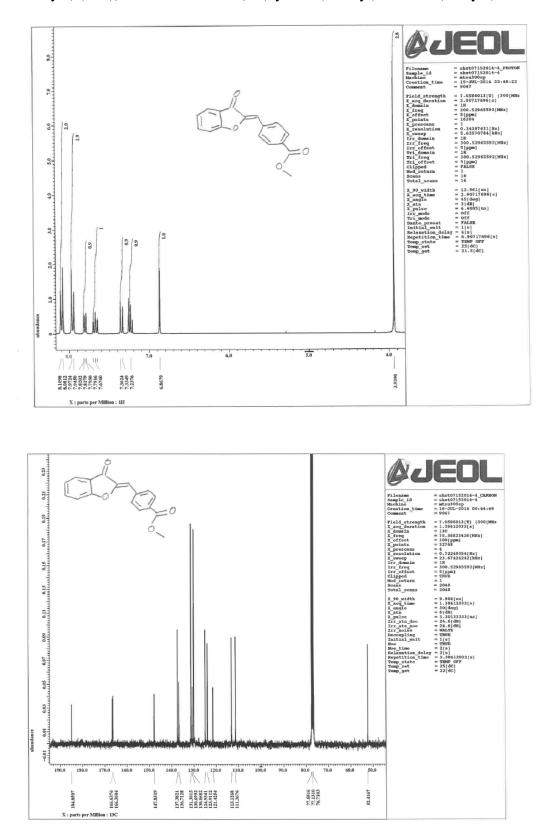
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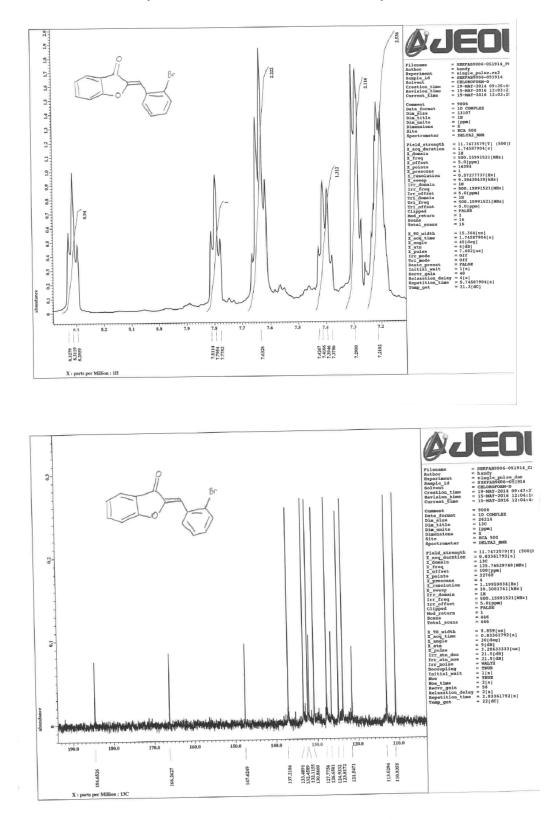
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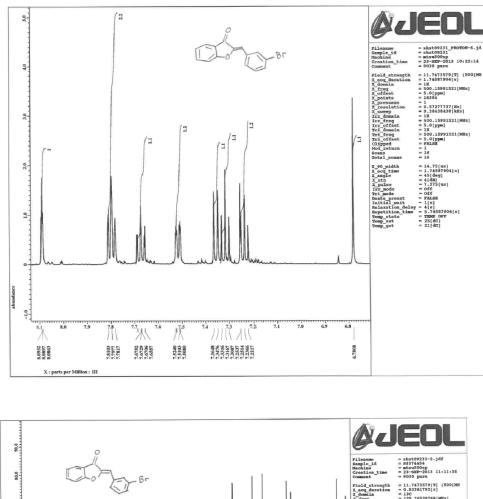


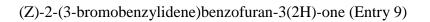


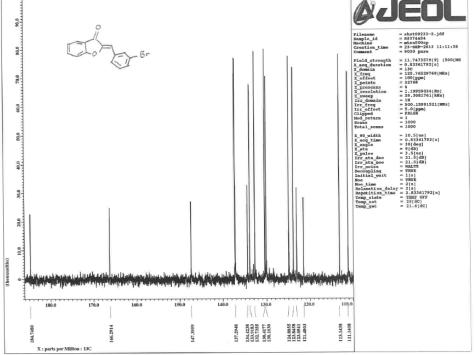
Methyl (Z)-4-((3-oxobenzofuran-2(3H)-ylidene)methyl)benzoate (Entry 7)

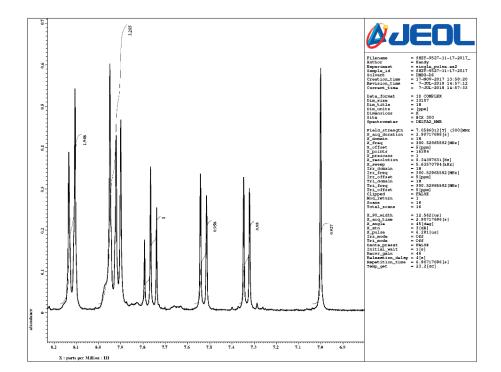


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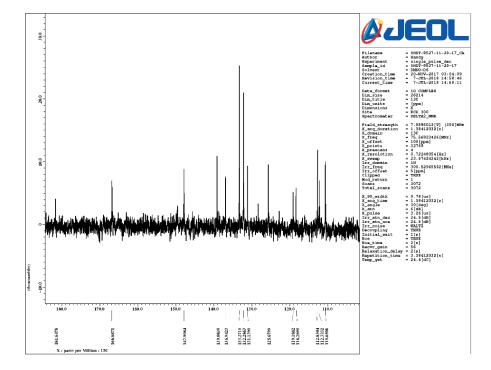


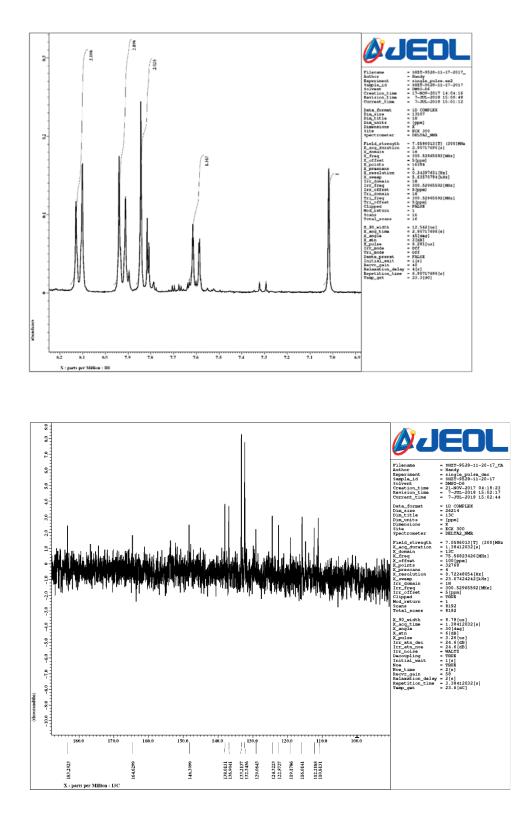




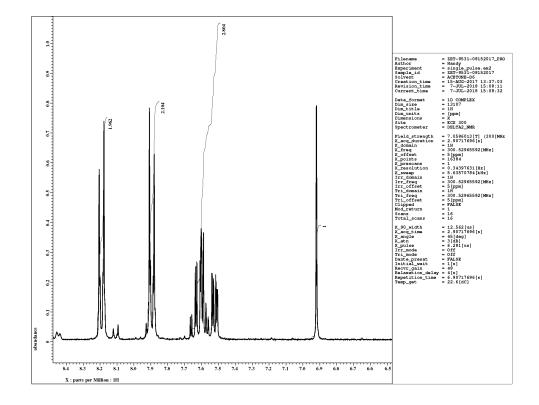


(Z)-4-((4-chloro-3-oxobenzofuran-2(3H)-ylidene)methyl)benzonitrile (Entry 13)

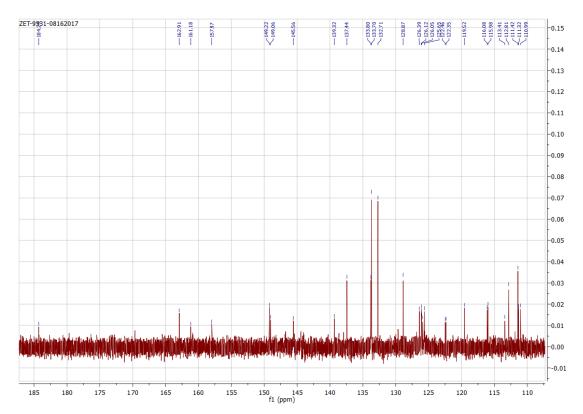


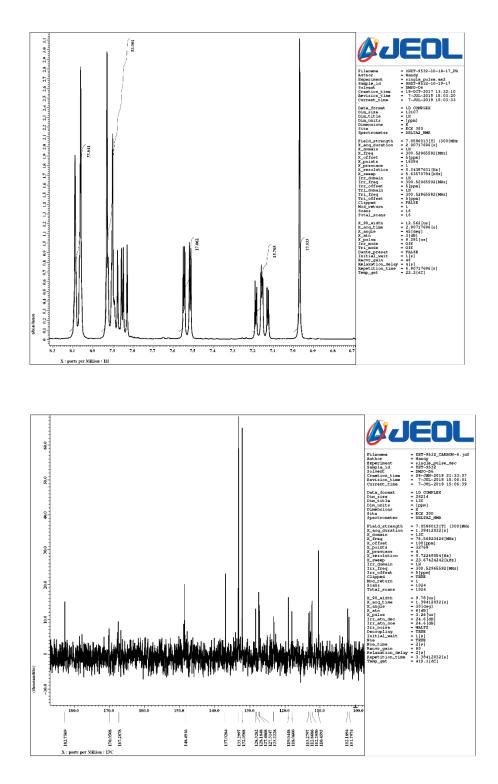


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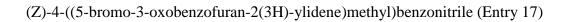


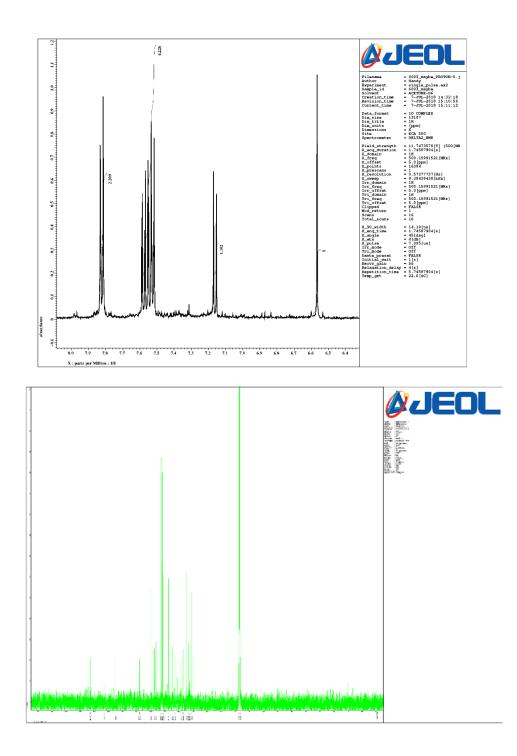
(Z)-4-((5-fluoro-3-oxobenzofuran-2(3H)-ylidene)methyl)benzonitrile (Entry 15)





(Z)-4-((6-fluoro-3-oxobenzofuran-2(3H)-ylidene)methyl)benzonitrile (Entry 16)

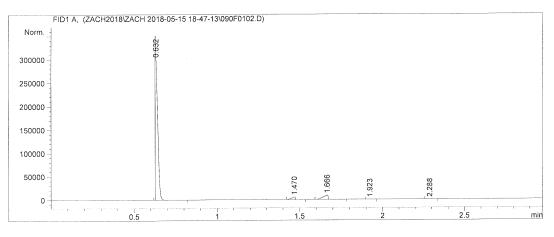




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Area Percent Report

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3	1.666	BB S	0.0316	1.80038e4	8624.55762	5.02161
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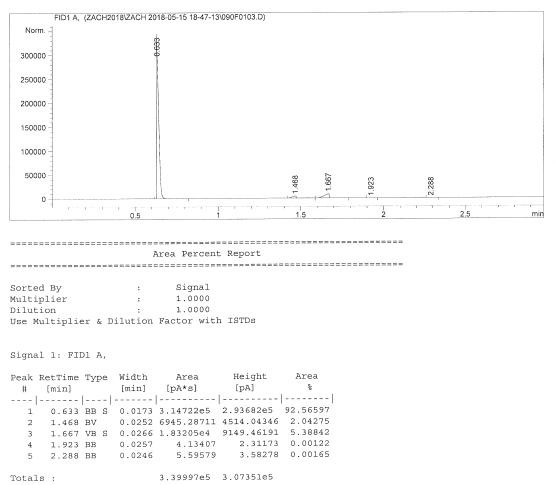
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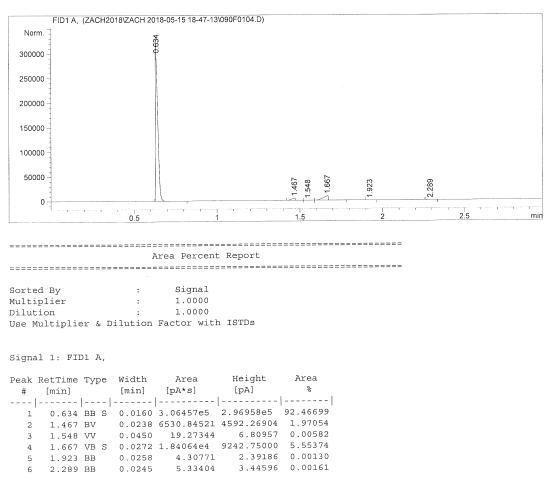


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			Inj Volume		
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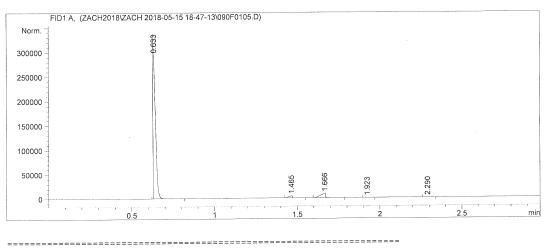


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3 1.666 BB S 0.0276 1.81201e4 8673.22656	5.36269
4 1.923 BB 0.0259 4.41347 2.44020	0.00131
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Totals :

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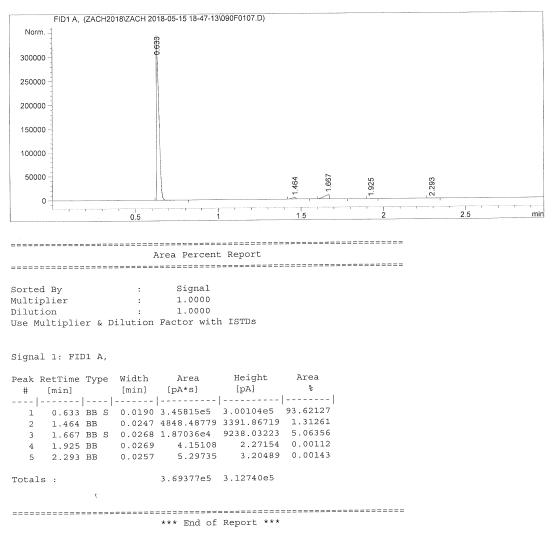
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                   :
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        1.668 BB S 0.0301 1.90516e4 9064.07617 6.52513
     3
       1.923 BB 0.0253
                       4.31048 2.45664 0.00148
     4
                       5.55374
                                3.56623 0.00190
     5 2.290 BB 0.0238
                      2.91972e5 2.67257e5
   Totals :
   *** End of Report ***
```

Instrument 1 7/6/2018 9:23:48 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 18-47-13\090F0107.D Sample Name: Benzaldehyde run #2

Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 90				
Injection Date	:	15-May-18, 19:12:33	Inj : 7				
-		_	Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-15 18-47-13\Z1.M				
Last changed	:	5/15/2018 5:12:03 PM b	y Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	, M				
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor				
		(modified after loadin	g)				
Method Info	:	Alditol lab.					



Instrument 1 7/6/2018 9:23:50 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 18-47-13\090F0108.D Sample Name: Benzaldehyde run #2 Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Inj: 8 Injection Date : 15-May-18, 19:16:36 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-15 18-47-13\Z1.M Acq. Method Last changed : 5/15/2018 5:12:03 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-15 18-47-13\090F0108.D) Norm. 0.634 300000 250000 200000 150000 100000 50000 664 923 2.292 0 ····· 0.5 1.5 2.5 min Area Percent Report Signal 1.0000 1.0000 Sorted By : Multiplier : Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Height Area Area [pA*s] [pA] ş # [min] [min] 0.634 BB S 0.0163 3.16588e5 2.99151e5 93.63343 1
 2
 1.461 BB
 0.0226
 4226.05469
 3037.23657
 1.24989
 3
 1.664 BB
 0.0252
 1.72912e4
 8833.56055
 5.11402
 1.923 BB 0.0262 3.95733 2.15451 0.00117 4 0.0261 5.02141 3.10333 0.00149 2.292 BB 5 3.38114e5 3.11027e5 Totals : ______

*** End of Report ***

Instrument 1 7/6/2018 9:23:52 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 18-47-13\090F0109.D
Sample Name: Benzaldehyde run #2
   Acq. Operator : Zach Taylor
                                      Seq. Line : 1
                                      Location : Vial 90
  Acq. Instrument : Instrument 1
                                           Inj: 9
  Injection Date : 15-May-18, 19:20:41
                                     Inj Volume : 1 µl
              : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-15 18-47-13\Z1.M
   Acq. Method
             : 5/15/2018 5:12:03 PM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
   Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
               (modified after loading)
   Method Info
             : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-15 18-47-13\090F0109.D)
    Norm.
                     0.634
    300000
    250000
    200000
    150000
    100000
    50000
                                            664
                                                 922
                                                         292
       0
                                                                 2.5
                  0.5
                                        1.5
   Area Percent Report
   Sorted By
                        Signal
                   :
   Multiplier
                       1.0000
                   :
                        1.0000
   Dilution
                   :
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
   Peak RetTime Type Width
                       Area
                               Height
                                       Area
                               [pA]
                                        Ŷ
    #
      [min]
                [min] [pA*s]
   1 0.634 BB S 0.0157 3.00772e5 3.00662e5 93.42956
     2
       1.460 BB 0.0224 3882.99756 2977.44189 1.20619
       1.664 BB S 0.0267 1.72597e4 8865.40234 5.36144
     3
       1.922 BB
2.292 BB
                0.0256 3.97526 2.23381 0.00123
0.0259 5.08761 3.05052 0.00158
     4
     5
   Totals :
                      3.21923e5 3.12511e5
```

*** End of Report ***

Instrument 1 7/6/2018 9:23:54 PM Zach Taylor

Page 1 of 1

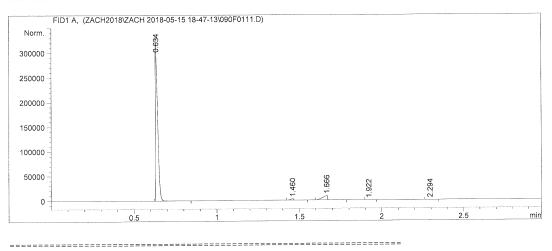
min

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 18-47-13\090F0110.D Sample Name: Benzaldehyde run #2 Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 90 Acq. Instrument : Instrument 1 Inj : 10 Injection Date : 15-May-18, 19:24:42 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-15 18-47-13\Z1.M Acq. Method Last changed : 5/15/2018 5:12:03 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-15 18-47-13\090F0110.D) Norm 0.636 250000 200000 150000 100000 50000 667 922 0 2.5 min 0.5 1.5 Area Percent Report Sorted By Signal Multiplier 1.0000 : Dilution 1.0000 Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Height Area Area [pA] Ŷ # [min] [min] [pA*s] 1 0.636 BB S 0.0146 2.28772e5 2.33872e5 91.00419 0.0214 3891.06104 3025.47852 1.54784 1.460 BB 2 1.667 BB S 0.0275 1.87130e4 9272.14648 7.44393 3 1.922 BB 4.26337 2.43490 0.00170 0.0244 4 3.57309 0.00235 2.292 BB 5.90213 0.0249 5 2.51386e5 2.46176e5 Totals : *** End of Report ***

Instrument 1 7/6/2018 9:23:56 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 18-47-13\090F0111.D Sample Name: Benzaldehyde run #2

	==			
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 90	
Injection Date	:	15-May-18, 19:28:46	Inj : 11	
-			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	018\ZACH 2018-05-15 18-47-13\Z1.M	
		5/15/2018 5:12:03 PM by		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M	
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor	
		(modified after loading	1)	
Method Info	:	Alditol lab.		



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Instrument 1 7/6/2018 9:23:58 PM Zach Taylor

Signal 1: FID1 A,

#	etTime [min]			Width [min]	Area [pA*s]	Height [pA]	Area %
		1					
1	0.634	BB	S			2.96948e5	
2	1.460	BB		0.0212	3475.13208	2747.84985	1.05765
3	1.666	BB	S	0.0317	1.83192e4	8724.62988	5.57541
4	1.922	$^{\rm BB}$		0.0247	4.03730	2.27191	0.00123
5	2.294	BB		0.0266	5.48494	3.16274	0.00167
					2 20572oF	2 0042505	

Totals :

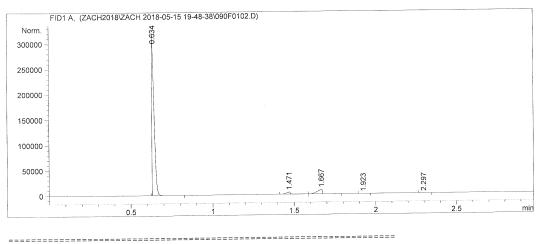
3.28572e5 3.08425e5

*** End of Report ***

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\090F0101.D Sample Name: Benzaldehyde run #3 Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 90 Injection Date : 15-May-18, 19:49:42 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\Z1.M : 5/15/2018 5:12:03 PM by Zach Taylor Acq. Method Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-15 19-48-38\090F0101.D) Norm. 3-635 250000 200000 150000 100000 -50000 667 923 0 2.5 min 0.5 1.5 _____ • Area Percent Report . Signal Sorted By : Multiplier : 1.0000 Dilution 1.0000 Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Peak RetTime Type Width Area Area # [min] [min] [pA*s] [pA] * 1 0.635 BB S 0.0169 2.65992e5 2.55907e5 91.07423 0.0247 7492.19238 4582.12793 2.56528 1.473 BV 2 1.667 VB S 0.0296 1.85668e4 9013.99707 6.35715 3 4.31274 5.43807 1.923 BB 0.0257 2.297 BB 0.0273 2.40544 0.00148 4 3.04099 0.00186 5 2.92061e5 2.69508e5 Totals : *** End of Report *** Page 1 of 1 Instrument 1 7/6/2018 9:25:47 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\090F0102.D Sample Name: Benzaldehyde run #3

Acq. Operator	:	Zach Taylor	Seq. Line : l					
Acq. Instrument			Location : Vial 90					
		15-May-18, 19:53:43	Inj : 2					
		-	Inj Volume : l µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\Z	ACH 2018-05-15 19-48-38\Z1.M					
Last changed	:	5/15/2018 5:12:03 PM by Zach Taylor						
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M						
Last changed	:	7/6/2018 9:23:05 PM by Zach	Taylor					
		(modified after loading)						
Method Info	:	Alditol lab.						



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak RetTime	Туре	Width	Area	Height	Area
# [min]		[min]	[pA*s]	[pA]	%
2 1.471	VB S BB	0.0271	2.92114e5 6439.69336 1.80332e4 4.06672 4.93253	2.99877e5 4104.35645 9095.10156 2.23327 2.87072	92.26714 2.03404 5.69598 0.00128 0.00156

Totals :

3.16596e5 3.13082e5

*** End of Report ***

Instrument 1 7/6/2018 9:25:49 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\090F0103.D Sample Name: Benzaldehyde run #3 Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Injection Date : 15-May-18, 19:57:48 Inj: 3 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\Z1.M Acq. Method : 5/15/2018 5:12:03 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-15 19-48-38\090F0103.D) Norm. 69 300000 250000 200000 150000 100000 50000 468 298 924 0 ······ r r 0.5 2.5 1.5 Area Percent Report Signal Sorted By : 1.0000 Multiplier : Dilution 1.0000 Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area 8 [min] [pA*s] [pA] # [min] 1 0.634 BB S 0.0162 3.16292e5 3.03310e5 93.07198
 1.468 BB
 0.0252 5343.61523 3622.40869 1.57241

 3
 1.667 BB S
 0.0255 1.81909e4 9176.37305 5.35284

 1.924
 BB
 0.0258
 4.17998
 2.31784
 0.00123

 2.298
 BB
 0.0271
 5.22501
 2.95030
 0.00154
 4 5 3.39836e5 3.16114e5 Totals : ______ *** End of Report ***

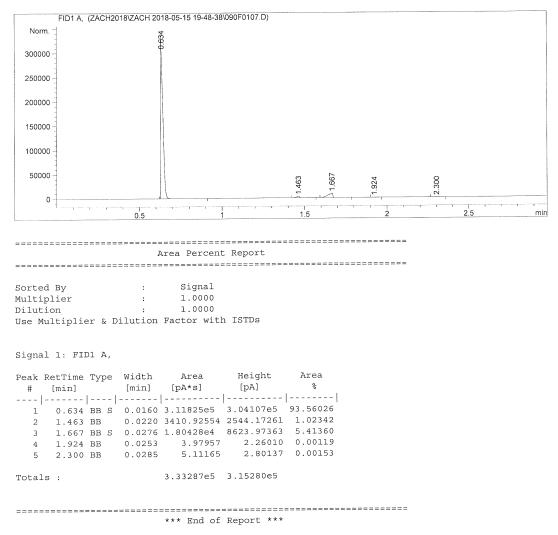
Instrument 1 7/6/2018 9:25:51 PM Zach Taylor

Page 1 of 1

min

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\090F0107.D Sample Name: Benzaldehyde run #3

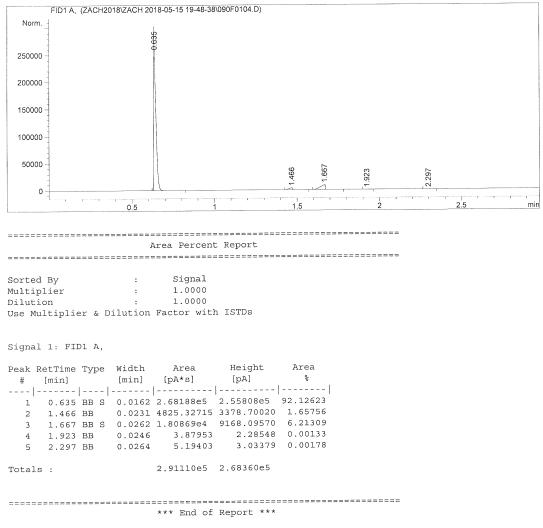
Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Injection Date : 15-May-18, 20:13:56 Inj: 7 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\Z1.M Acq. Method : 5/15/2018 5:12:03 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info



Instrument 1 7/6/2018 9:26:00 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\090F0104.D Sample Name: Benzaldehyde run #3

Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 90				
Injection Date	:	15-May-18, 20:01:49	Inj: 4				
			Inj Volume : l µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-15 19-48-38\Z1.M				
Last changed	:	5/15/2018 5:12:03 PM by	5/15/2018 5:12:03 PM by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	C:\CHEM32\1\METHODS\Z4.M				
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor				
		(modified after loading	1)				
Method Info	:	Alditol lab.					



Instrument 1 7/6/2018 9:25:53 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\090F0105.D
Sample Name: Benzaldehyde run #3
   Seq. Line :
                                                       1
   Acq. Operator : Zach Taylor
                                            Location : Vial 90
   Acq. Instrument : Instrument 1
   Injection Date : 15-May-18, 20:05:54
                                                Inj: 5
                                          Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\Z1.M
   Acq. Method
              : 5/15/2018 5:12:03 PM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
   Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
                  (modified after loading)
   Method Info
                : Alditol lab.
   ______
          FID1 A, (ZACH2018\ZACH 2018-05-15 19-48-38\090F0105.D)
     Norm.
                        <del>.6</del>34
     300000
     250000
     200000
     150000
     100000
     50000
                                             464
                                                        923
        0
                                                                        ·····
                                                                     2.5
                                                                                min
                     0.5
                                             1 5
   Area Percent Report
    Signal
   Sorted By
                      :
                          1.0000
   Multiplier
                     :
                      :
                           1.0000
   Dilution
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
                                   Height
                                            Area
    Peak RetTime Type Width
                          Area
                   [min] [pA*s]
                                   [pA]
                                              8
     # [min]
    0.634 BB S 0.0154 2.92316e5 2.98969e5 93.10439
      1
      2 1.464 BB 0.0216 4129.69287 3161.11670 1.31533
         1.665 BB S 0.0284 1.75116e4 8639.70703 5.57754
      3

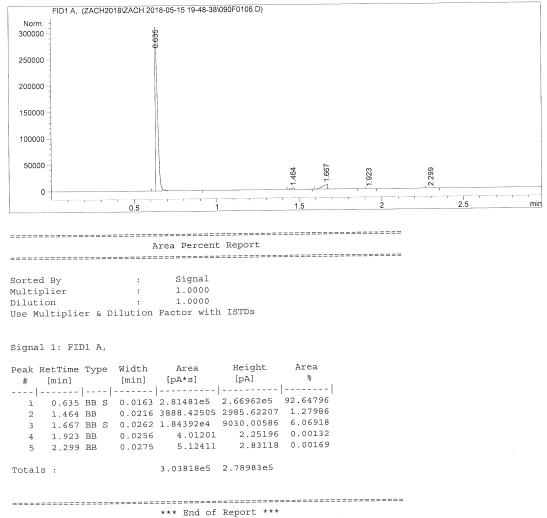
        1.923
        BB
        0.0252
        3.82538
        2.19204
        0.00122

        2.298
        BB
        0.0268
        4.78303
        2.73424
        0.00152

      4
      5
                         3.13966e5 3.10775e5
    Totals :
    *** End of Report ***
                                                                    Page 1 of 1
 Instrument 1 7/6/2018 9:25:55 PM Zach Taylor
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\090F0106.D Sample Name: Benzaldehyde run #3

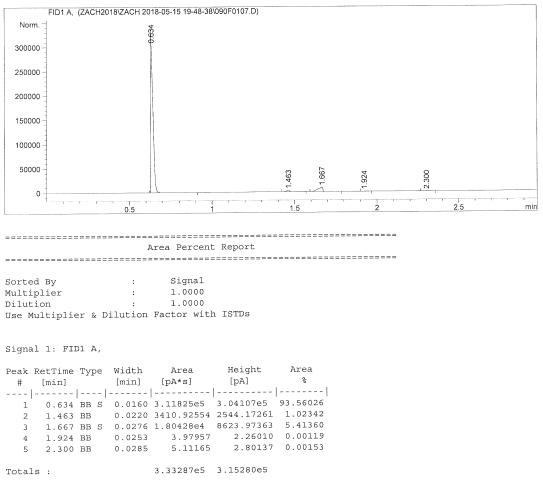
Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Inj: 6 Injection Date : 15-May-18, 20:09:54 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\Z1.M Acq. Method : 5/15/2018 5:12:03 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 9:25:58 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\090F0107.D Sample Name: Benzaldehyde run #3

Acq. Operator	: Zach Taylor	Seq. Line : 1					
Acq. Instrument	: Instrument 1	Location : Vial 90					
Injection Date	: 15-May-18, 20:13:56	Inj : 7					
		Inj Volume : 1 µl					
Acq. Method	: C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-05-15 19-48-38\Z1.M					
Last changed	: 5/15/2018 5:12:03 PM	5/15/2018 5:12:03 PM by Zach Taylor					
Analysis Method	: C:\CHEM32\1\METHODS\2	24.M					
Last changed	: 7/6/2018 9:23:05 PM b	y Zach Taylor					
	(modified after loadi	.ng)					
Method Info	: Alditol lab.						

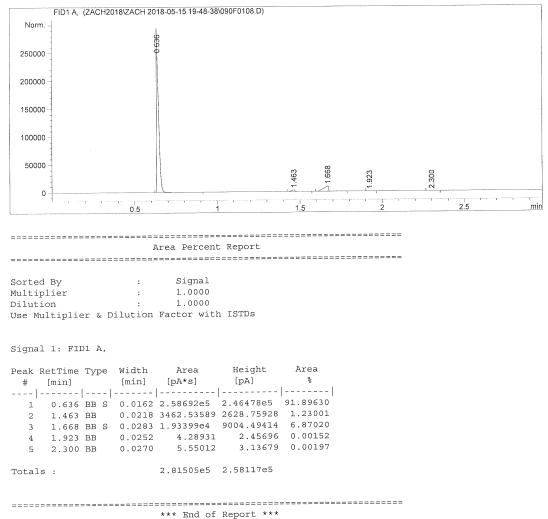


*** End of Report ***

Instrument 1 7/6/2018 9:26:00 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\090F0108.D Sample Name: Benzaldehyde run #3

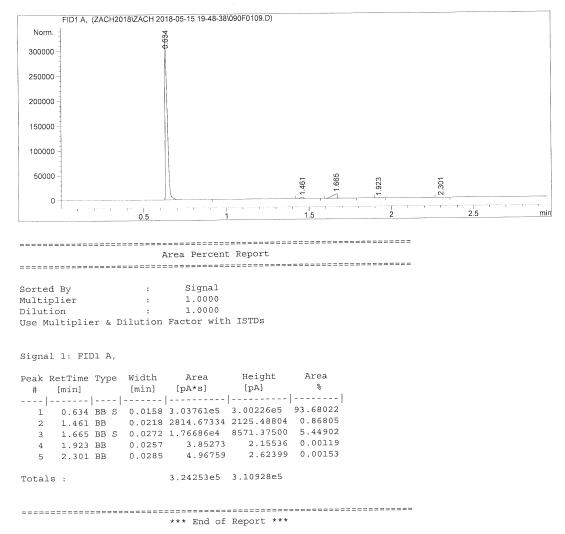
Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Injection Date : 15-May-18, 20:17:58 Inj: 8 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\Z1.M Acq. Method : 5/15/2018 5:12:03 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 9:26:02 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\090F0109.D Sample Name: Benzaldehyde run #3

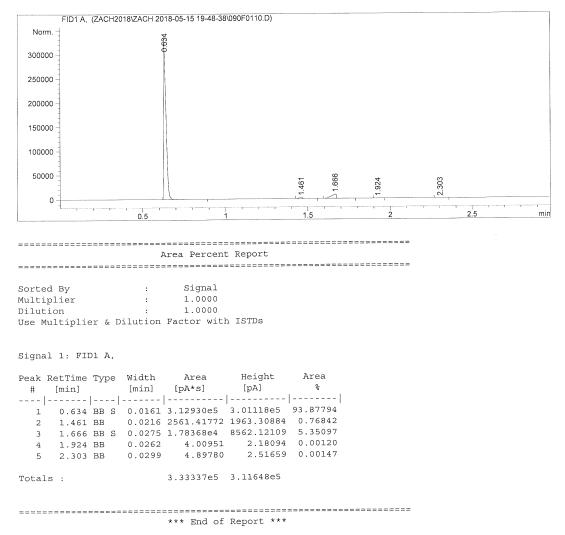
:	Zach Taylor	Seq. Line : 1					
:	Instrument 1	Location : Vial 90					
:	15-May-18, 20:22:01	Inj: 9					
	-	Inj Volume : 1 µl					
:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-15 19-48-38\Z1.M					
:	5/15/2018 5:12:03 PM by Zach Taylor						
:	C:\CHEM32\1\METHODS\Z4	M					
:	7/6/2018 9:23:05 PM by	Zach Taylor					
	(modified after loading	1)					
:	Alditol lab.						
	:::::::::::::::::::::::::::::::::::::::						



Instrument 1 7/6/2018 9:26:04 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\090F0110.D Sample Name: Benzaldehyde run #3

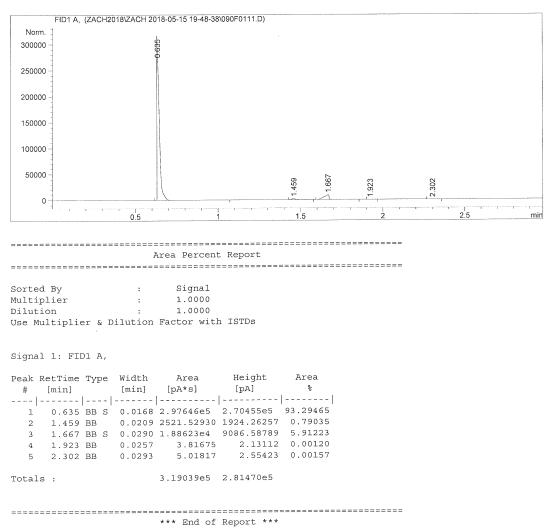
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Acq. Instrument	:	Instrument 1	Location : Vial 90			
Injection Date	:	15-May-18, 20:26:04	Inj : 10			
-			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-15 19-48-38\Z1.M			
Last changed	:	5/15/2018 5:12:03 PM b	y Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M			
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor			
		(modified after loadin	ig)			
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 9:26:06 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 19-48-38\090F0111.D Sample Name: Benzaldehyde run #3

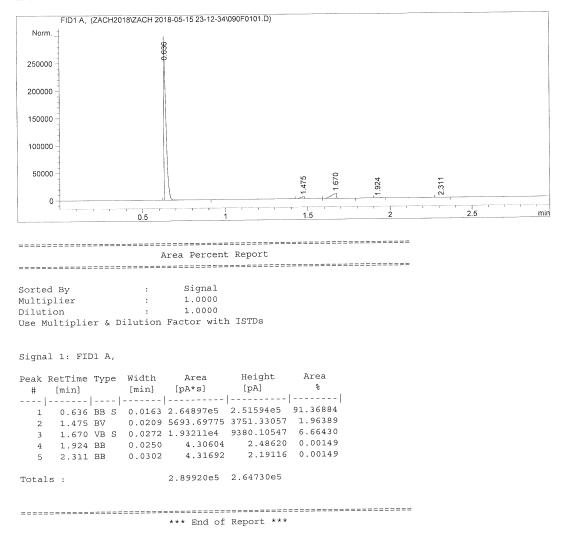
Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 90				
Injection Date	:	15-May-18, 20:30:08	Inj : 11				
			Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-15 19-48-38\Z1.M				
Last changed	:	5/15/2018 5:12:03 PM by	5/15/2018 5:12:03 PM by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M				
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor				
		(modified after loading)				
Method Info	:	Alditol lab.					



Instrument 1 7/6/2018 9:26:08 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 23-12-34\090F0101.D Sample Name: Benzaldehyde run #6

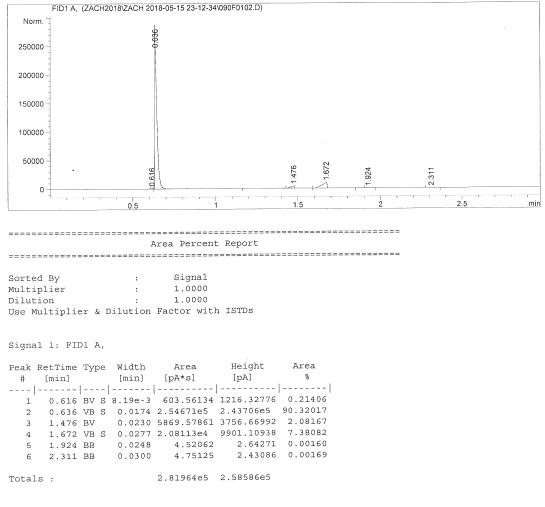
upro nonce, concer									
Acq. Operator	:	Zach Taylor	Seq. Line : 1						
Acq. Instrument	:	Instrument 1	Location : Vial 90						
Injection Date	:	15-May-18, 23:13:37	Inj: 1						
2		-	Inj Volume : 1 µl						
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZA	CH 2018-05-15 23-12-34\Z1.M						
Last changed	:	5/15/2018 5:12:03 PM by Zach	5/15/2018 5:12:03 PM by Zach Taylor						
Analysis Method	d : C:\CHEM32\1\METHODS\Z4.M								
Last changed	:	7/6/2018 9:23:05 PM by Zach	Taylor						
		(modified after loading)							
Method Info	:	Alditol lab.							



Instrument 1 7/6/2018 9:26:46 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 23-12-34\090F0102.D Sample Name: Benzaldehyde run #6

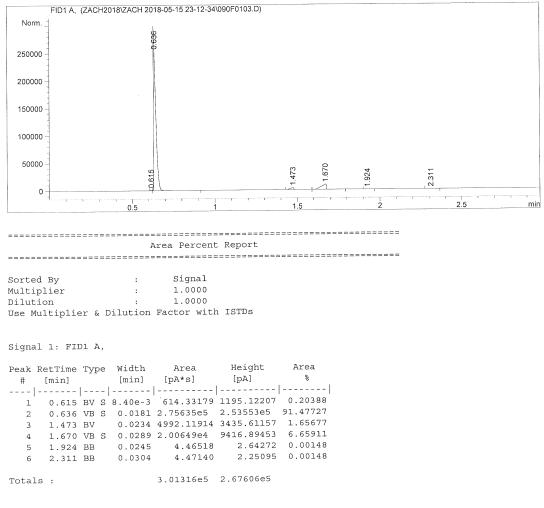
Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Via	1 90			
Injection Date	:	15-May-18, 23:17:41	Inj : 2				
			Inj Volume : 1 µ				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\Z	ACH 2018-05-15 23-1	2-34\Z1.M			
Last changed	:	5/15/2018 5:12:03 PM by Zac	n Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M					
Last changed	:	7/6/2018 9:23:05 PM by Zach	Taylor				
		(modified after loading)					
Method Info	:	Alditol lab.					



Instrument 1 7/6/2018 9:26:49 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 23-12-34\090F0103.D Sample Name: Benzaldehyde run #6

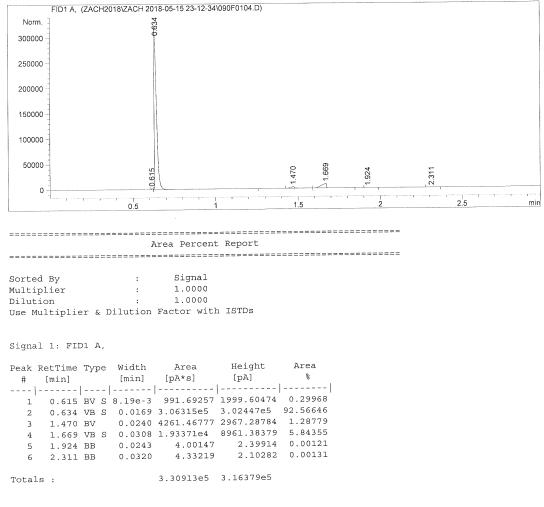
Acq. Operator	:	Zach Taylor	Seq. Line : 1					
Acq. Instrument	:	Instrument 1	Location : Vial 90					
Injection Date	:	15-May-18, 23:21:43	Inj: 3					
			Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-15 23-12-34\Z1.M					
Last changed	:	5/15/2018 5:12:03 PM by	5/15/2018 5:12:03 PM by Zach Taylor					
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M					
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor					
		(modified after loading)					
Method Info	:	Alditol lab.						



Instrument 1 7/6/2018 9:26:51 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 23-12-34\090F0104.D Sample Name: Benzaldehyde run #6

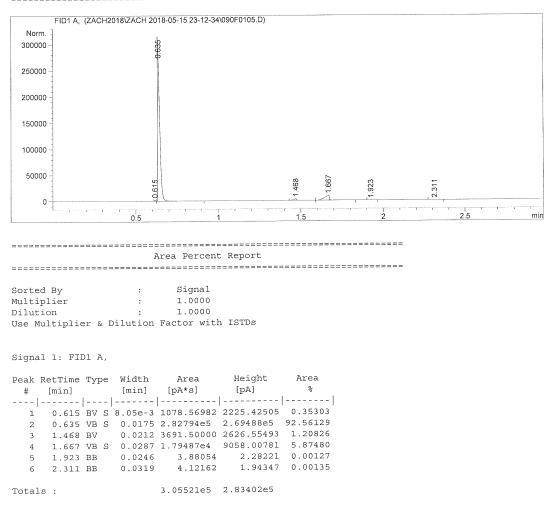
Acq. Operator	: Zach Taylor	Seq. Line : 1						
Acq. Instrument	: Instrument 1	Location : Vial 90						
Injection Date	: 15-May-18, 23:25:45	Inj: 4						
-		Inj Volume : 1 µl						
Acq. Method	: C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-15 23-12-34\Z1.M						
	: 5/15/2018 5:12:03 PM by							
Analysis Method	: C:\CHEM32\1\METHODS\Z4.	M						
Last changed	: 7/6/2018 9:23:05 PM by	Zach Taylor						
-	(modified after loading)						
Method Info	: Alditol lab.							



Instrument 1 7/6/2018 9:26:53 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 23-12-34\090F0105.D Sample Name: Benzaldehyde run #6

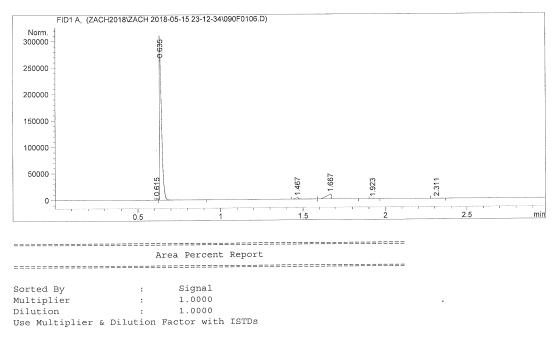
Acq. Operator :	: Zach Taylor	Seq. Line : 1					
Acq. Instrument :	: Instrument 1	Location : Vial 90					
Injection Date :	: 15-May-18, 23:29:47	Inj : 5					
		Inj Volume : 1 µl					
Acq. Method :	C:\Chem32\l\DATA\ZACH2018\ZA	CH 2018-05-15 23-12-34\Z1.M					
Last changed :	: 5/15/2018 5:12:03 PM by Zach	5/15/2018 5:12:03 PM by Zach Taylor					
Analysis Method :	: C:\CHEM32\1\METHODS\Z4.M	C:\CHEM32\1\METHODS\Z4.M					
Last changed :	: 7/6/2018 9:23:05 PM by Zach '	Taylor					
	(modified after loading)						
Method Info	Alditol lab.						



Instrument 1 7/6/2018 9:26:55 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 23-12-34\090F0106.D Sample Name: Benzaldehyde run #6

pre Name. Benzardenyde run #6									
Acq. Operator	:	Zach Taylor	Seq.	Line	:	1			
Acq. Instrument	:	Instrument 1	Loca	ation	:	Vial	90		
Injection Date	:	15-May-18, 23:33:50		Inj	:	6			
		-	Inj Vo						
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH	H 2018	-05-15	5	23-12-	-34\Z1.M		
Last changed	:	5/15/2018 5:12:03 PM by Zach '	Faylor						
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M							
Last changed	:	7/6/2018 9:23:05 PM by Zach T	aylor						
		(modified after loading)							
Method Info	:	Alditol lab.							



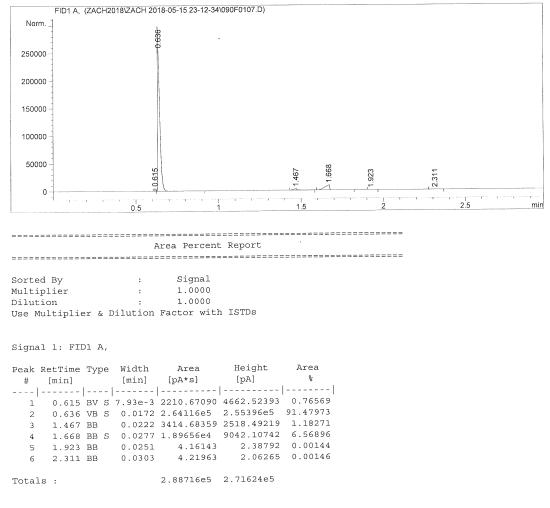
Signal 1: FID1 A,

Peak Ro #	etTime [min]	Тур	Э	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.615	BV .	s	7.96e-3	1812.39478	3804.80615	0.59912
2	0.635	VB	S	0.0175	2.78594e5	2.64705e5	92.09452
3	1.467	вv		0.0224	3560.09424	2599.87476	1.17686
4	1.667	VB .	5	0.0263	1.85343e4	9059.16309	6.12684
5	1.923	BB		0.0246	4.05028	2,38143	0.00134
6	2.311	BB		0.0301	4.00117	1.96964	0.00132
Totals	:				3.02509e5	2.80173e5	

Instrument 1 7/6/2018 9:26:57 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 23-12-34\090F0107.D Sample Name: Benzaldehyde run #6

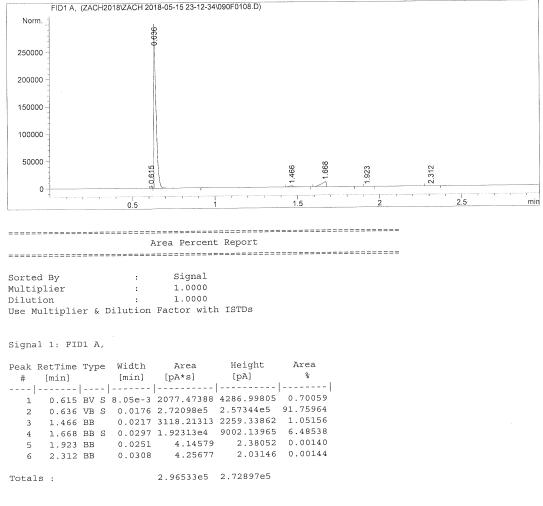
Acq. Operator	:	Zach Taylor	Seq. Line	:	1
Acq. Instrument	:	Instrument 1	Location	:	Vial 90
Injection Date	:	15-May-18, 23:37:52	Inj	:	7
		_	Inj Volume		
Acq. Method	:	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-05-1	5	23-12-34\Z1.M
Last changed	:	5/15/2018 5:12:03 PM	by Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\2	24.M		
Last changed	:	7/6/2018 9:23:05 PM k	y Zach Taylor		
_		(modified after loadi	.ng)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 9:26:59 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 23-12-34\090F0108.D Sample Name: Benzaldehyde run #6

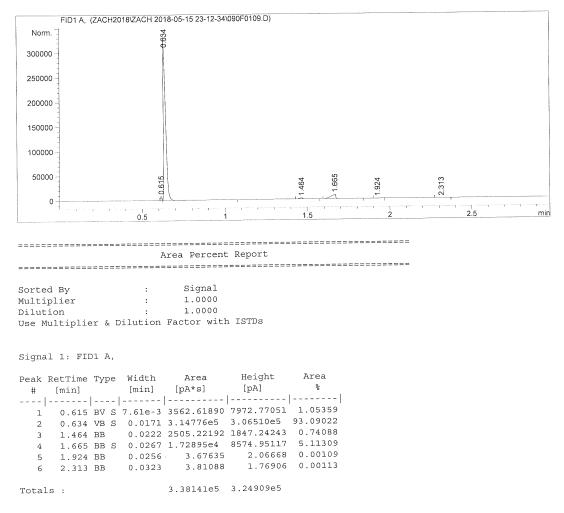
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 90
Injection Date	:	15-May-18, 23:41:56	Inj: 8
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-15 23-12-34\Z1.M
Last changed	:	5/15/2018 5:12:03 PM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Z	ach Taylor
		(modified after loading)	
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 9:27:00 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 23-12-34\090F0109.D Sample Name: Benzaldehyde run #6

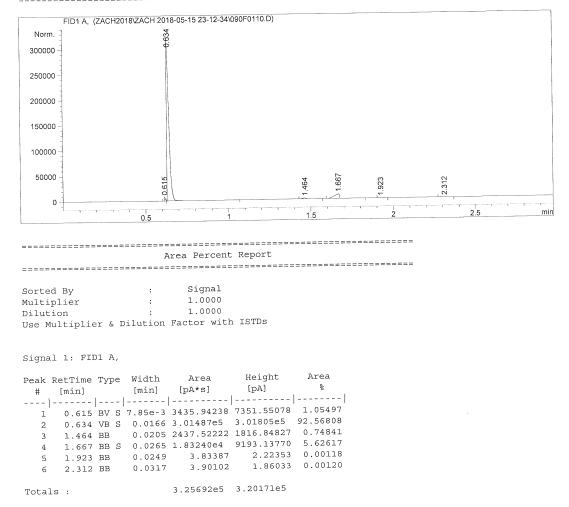
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 90	
Injection Date	:	15-May-18, 23:45:56	Inj : 9	
5		-	Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-15 23-12-34\Z1.M	
Last changed	:	5/15/2018 5:12:03 PM k	y Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M	
Last changed		7/6/2018 9:23:05 PM by		
-		(modified after loadin	g)	
Method Info	:	Alditol lab.		



Instrument 1 7/6/2018 9:27:02 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 23-12-34\090F0110.D Sample Name: Benzaldehyde run #6

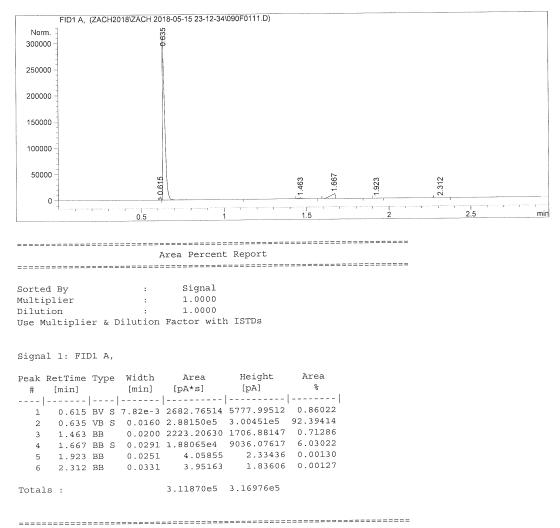
Acq. Operator :	: Zach Taylor	Seq. Line : 1	
Acq. Instrument :		Location : Vial 90	
	: 15-May-18, 23:49:59	Inj : 10	
5		Inj Volume : 1 µl	
Acg. Method	: C:\Chem32\1\DATA\ZACH2018	B\ZACH 2018-05-15 23-12-34\Z1.M	
Last changed	: 5/15/2018 5:12:03 PM by 2	Zach Taylor	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M		
Last changed	: 7/6/2018 9:23:05 PM by Za	ach Taylor	
5	(modified after loading)		
Method Info	: Alditol lab.		



Instrument 1 7/6/2018 9:27:03 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-15 23-12-34\090F0111.D Sample Name: Benzaldehyde run #6

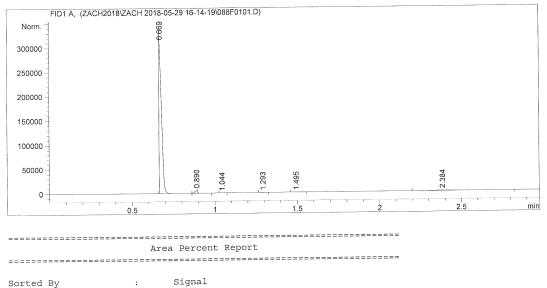
	=		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument			Location : Vial 90
		15-May-18, 23:54:01	Inj : 11
3		-	Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-15 23-12-34\Z1.M
Last changed	:	5/15/2018 5:12:03 PM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
5		(modified after loading)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 9:27:05 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\088F0101.D Sample Name: 4-Nitro

Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument			Location : Vial 88	
Injection Date	:	29-May-18, 16:15:20	Inj: 1	
5		-	Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-29 16-14-19\Z4.M	
Last changed	:	5/29/2018 3:59:16 PM k	y Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M	
Last changed	:	7/6/2018 9:23:05 PM by	/ Zach Taylor	
-		(modified after loadir	ng)	
Method Info	:	Alditol lab.		



Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

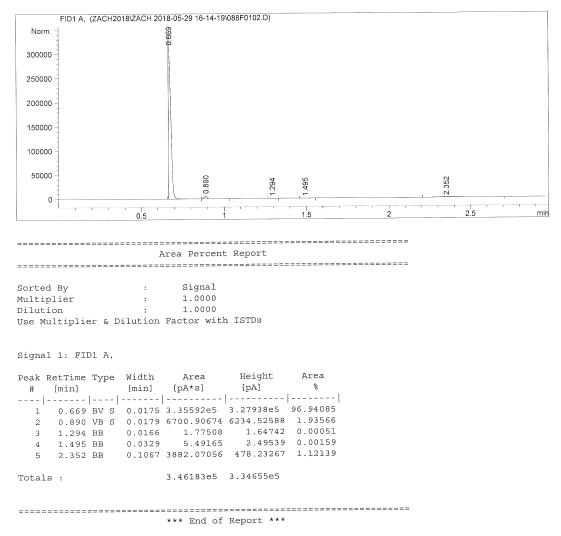
Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.669	BV S	0.0171	3.34149e5	3.16640e5	95.76962
2	0.890	VB S	0.0188	6851.38330	6076.64404	1.96366
3	1.044	BB	0.0176	1.51650	1.29798	0.00043
4	1.293	BB	0.0173	1.58307	1.38658	0.00045
5	1.495	BB	0.0337	5.75305	2.53223	0.00165
6	2.384	BB	0.1091	7899.96582	941.55011	2.26419
Total	.5 :			3.48909e5	3.23664e5	

IIS : 5.4090965 5.2500100

Instrument 1 7/6/2018 9:35:39 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\088F0102.D Sample Name: 4-Nitro

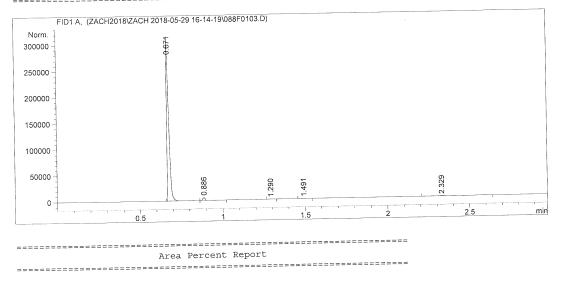
_____ _____ Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 2 Injection Date : 29-May-18, 16:19:19 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\Z4.M Acq. Method Last changed : 5/29/2018 3:59:16 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 9:35:41 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\088F0103.D Sample Name: 4-Nitro

```
Seq. Line : 1
Acq. Operator : Zach Taylor
                                         Location : Vial 88
Acq. Instrument : Instrument 1
                                             Inj: 3
Injection Date : 29-May-18, 16:23:18
                                       Inj Volume : 1 µl
             : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\Z4.M
Acq. Method
             : 5/29/2018 3:59:16 PM by Zach Taylor
Last changed
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
               (modified after loading)
             : Alditol lab.
Method Info
```



Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak RetTime		Width	Area	Height	Area
# [min]		[min]	[pA*s]	[pA]	%
1 0.671 2 0.886 3 1.290 4 1.491 5 2.329	BV S VB S BB BB	0.0167 0.0170 0.0331	2.62885e5 5168.87402 1.52161 4.21203 1869.59143	2.76500e5 5456.93457 1.36436 1.89621 229.96245	97.39035 1.91490 0.00056 0.00156 0.69262

Totals :

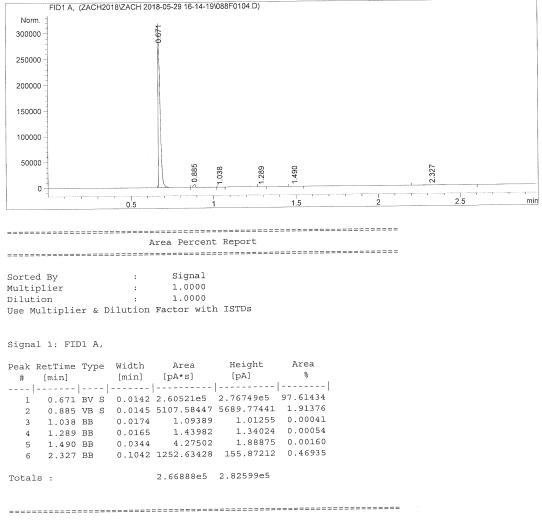
2.69929e5 2.82190e5

*** End of Report ***

Instrument 1 7/6/2018 9:35:43 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\088F0104.D Sample Name: 4-Nitro

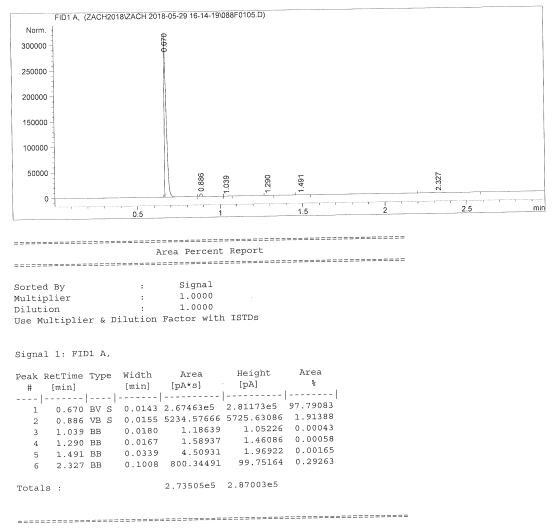
Acq. Operator	Zach Taylor Seq. Line : 1			
Acq. Instrument	Instrument 1 Location : Vial 88			
Injection Date	29-May-18, 16:27:17 Inj : 4			
5	Inj Volume : 1 µl			
Acq. Method	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19	∖Z4.M		
Last changed	5/29/2018 3:59:16 PM by Zach Taylor			
Analysis Method	C:\CHEM32\1\METHODS\Z4.M			
Last changed	7/6/2018 9:23:05 PM by Zach Taylor			
-	(modified after loading)			
Method Info	Alditol lab.			



Instrument 1 7/6/2018 9:35:45 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\088F0105.D Sample Name: 4-Nitro

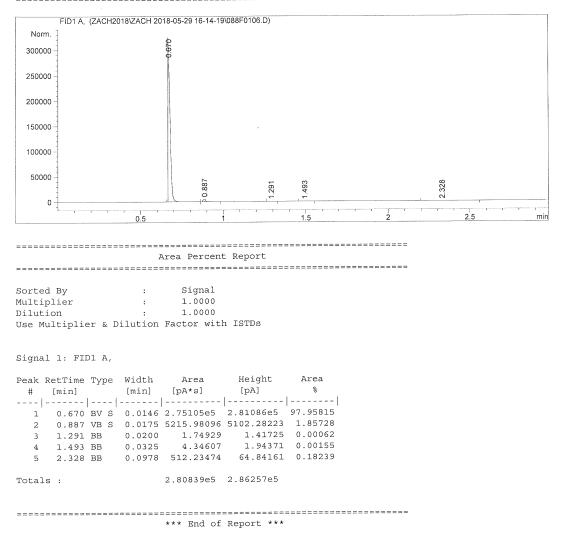
Acq. Operator	: Zach Taylor	Seq. Line : l
Acq. Instrument		Location : Vial 88
	: 29-May-18, 16:31:19	Inj: 5
11,0001011		Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH201	L8\ZACH 2018-05-29 16-14-19\Z4.M
Last changed	: 5/29/2018 3:59:16 PM by	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.N	4
Last changed	: 7/6/2018 9:23:05 PM by 2	Zach Taylor
	(modified after loading))
Method Info	: Alditol lab.	



Instrument 1 7/6/2018 9:35:47 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\088F0106.D Sample Name: 4-Nitro

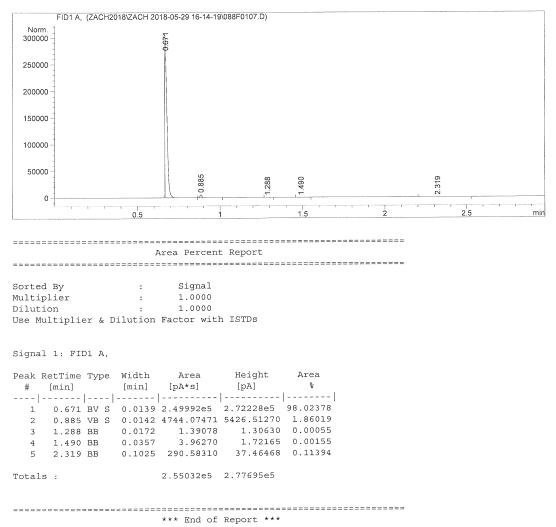
	= = :		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	29-May-18, 16:35:18	Inj: 6
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-29 16-14-19\Z4.M
Last changed	:	5/29/2018 3:59:16 PM by	/ Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
		(modified after loading	1)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 9:35:49 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\088F0107.D Sample Name: 4-Nitro

Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	29-May-18, 16:39:17	Inj: 7
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH20)18\ZACH 2018-05-29 16-14-19\Z4.M
Last changed	:	5/29/2018 3:59:16 PM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
-		(modified after loading	3)
Method Info	:	Alditol lab.	



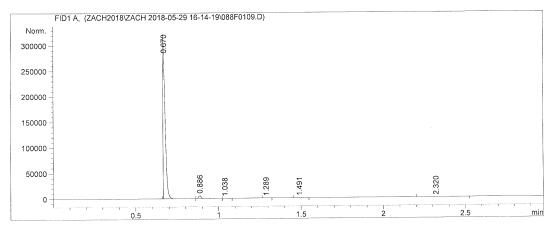
Instrument 1 7/6/2018 9:35:50 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\088F0108.D Sample Name: 4-Nitro Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 16:43:15 Inj: 8 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\Z4.M Acq. Method : 5/29/2018 3:59:16 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-29 16-14-19\088F0108.D) Norm. 300000 250000 200000 150000 100000 50000 2.318 0.886 492 039 0 2.5 0.5 15 min Area Percent Report ------Signal Sorted By . 1.0000 Multiplier : Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Peak RetTime Type Width Area Area [pA*s] [pA] 8 [min] # [min] 1 0.670 BV S 0.0159 3.03473e5 2.97777e5 98.00321 2 0.886 VB S 0.0171 5952.22852 6034.06152 1.92221 0.0190 1.22535 1.06603 0.00040 3 1.039 BB 1.65158 0.00040 1.290 BB 0.0193 1.93392 4 5 1.492 BB 0.0351 5.10393 2.19827 0.00165 2.318 BB 0.0961 222.69453 28.45996 0.07192 6 3.09656e5 3.03845e5 Totals : _____

Instrument 1 7/6/2018 9:35:52 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\088F0109.D Sample Name: 4-Nitro

pre name, i nicio					
Acq. Operator	:	Zach Taylor	Seq. Line : 1		
Acq. Instrument	:	Instrument 1	Location : Vial 88		
Injection Date	:	29-May-18, 16:47:15	Inj: 9		
5		-	Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-29 16-14-19\Z4.M		
Last changed	:	5/29/2018 3:59:16 PM by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M			
Last changed	:	7/6/2018 9:23:05 PM by Z	ach Taylor		
		(modified after loading)			
Method Info	:	Alditol lab.			



Area Percent Report

.

Sorted By : Signal 1.0000 Multiplier : Dilution : Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

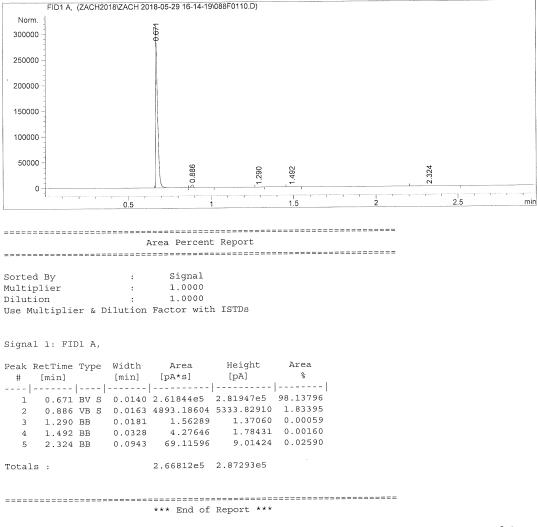
Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.670	BV S	0.0144	2.70836e5	2.81138e5	97.95528
2	0.886	VB S	0.0158	5507.02637	5835.18896	1.99176
3	1.038	BB	0.0219	1.41960	1.06552	0.00051
4	1.289	BB	0.0184	1.80968	1.54758	0.00065
5	1.491	BB	0.0340	4.67354	2.03647	0.00169
6	2.320	BB	0.1017	138.51498	17.86034	0.05010

2.76490e5 2.86996e5 Totals :

Instrument 1 7/6/2018 9:35:54 PM Zach Taylor

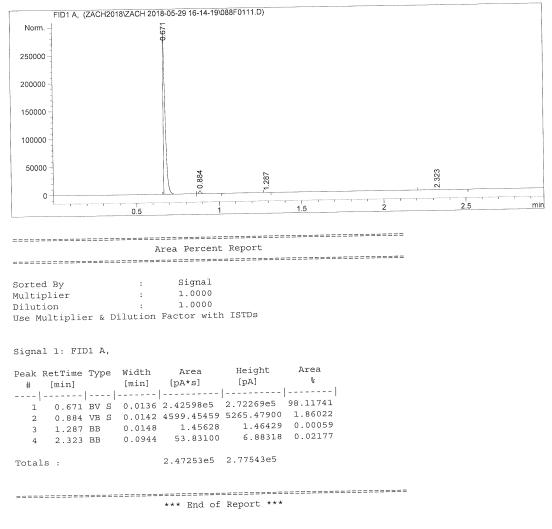
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\088F0110.D Sample Name: 4-Nitro

Acq. Operator	:	Zach Taylor Seq.	Line	:	1	
Acq. Instrument	:	Instrument 1 Loc	ation	:	Vial	88
-		29-May-18, 16:51:14	Inj	:	10	
J			/olume	:	1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018	8-05-2	9	16-14-	-19\Z4.M
Last changed	:	5/29/2018 3:59:16 PM by Zach Taylor	-			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M				
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor				
		(modified after loading)				
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 9:35:56 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\088F0111.D Sample Name: 4-Nitro Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Inj : 11 Injection Date : 29-May-18, 16:55:15 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 16-14-19\Z4.M Acq. Method : 5/29/2018 3:59:16 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info



Instrument 1 7/6/2018 9:35:58 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\088F0101.D Sample Name: 4-Nitro Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 17:00:13 Inj: 1 Inj Volume : 1 µl Acq. Method : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\Z4.M : 5/29/2018 3:59:16 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-29 16-59-13\088F0101.D) Norm. 300000 250000 200000 150000 100000 50000 389 042 494 2.377 0 2.5 min 1.5 0.5 Area Percent Report Sorted By Signal : 1.0000 Multiplier : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area [min] [pA*s] [pA] 8 # [min] 0.669 BV S 0.0167 3.24532e5 2.98835e5 96.26729 1 0.889 VB S 0.0159 6498.52930 6356.59912 1.92768 2 2.17349 1.44597 0.00064 1.042 BB 0.0231 3 1.44041 0.00048 1.61402 4 1.293 BB 0.0171 2.55719 0.00170 1.494 BB 0.0318 5.73568 5 2.377 BB 0.1037 6075.51123 740.47583 1.80220 6 3.37116e5 3.05937e5 Totals :

Instrument 1 7/6/2018 9:36:48 PM Zach Taylor

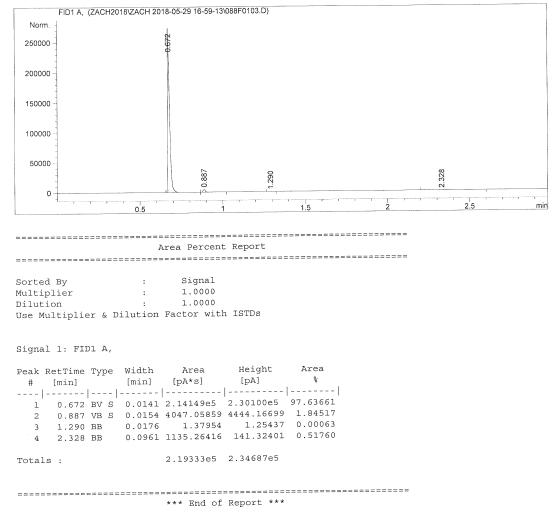
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\088F0102.D Sample Name: 4-Nitro Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Injection Date : 29-May-18, 17:04:12 Inj: 2 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\Z4.M Acq. Method Last changed : 5/29/2018 3:59:16 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-29 16-59-13\088F0102.D) Norm. 0.665 300000 250000 200000 150000 100000 -50000 2.349 889 493 0 2.5 mir 0.5 1.5 Area Percent Report Sorted By : Signal Multiplier 1.0000 : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Peak RetTime Type Width Area Area [pA] [pA*s] 8 # [min] [min] 0.669 BV S 0.0152 3.27596e5 3.39909e5 97.02217 1 0.889 VB S 0.0156 6654.42432 6706.99756 1.97080 2 1.67242 0.00052
 1.292
 BB
 0.0162
 1.74457

 1.493
 BB
 0.0336
 5.61040
 3 2.55914 0.00166 4 2.349 BB 0.1052 3392.88696 420.93555 1.00485 5 3.37650e5 3.47041e5 Totals : *** End of Report ***

Instrument 1 7/6/2018 9:36:50 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\088F0103.D Sample Name: 4-Nitro

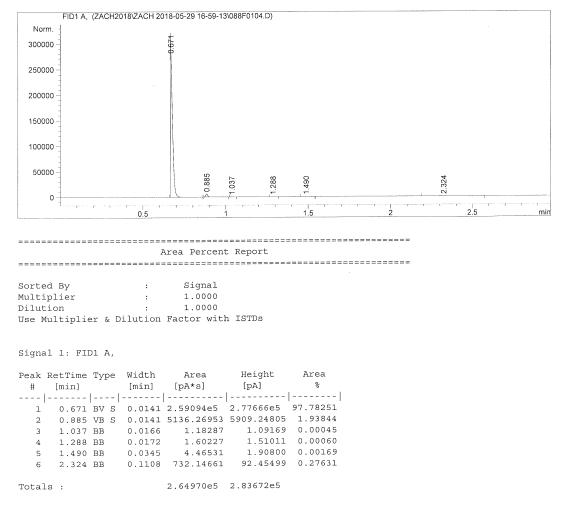
Acq. Operator	: Zach Taylor Seq. Line : 1					
Acq. Instrument						
a.	: 29-May-18, 17:08:11 Inj : 3					
2	Inj Volume : 1 µl					
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\Z	34.M				
Last changed	: 5/29/2018 3:59:16 PM by Zach Taylor					
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M					
Last changed	: 7/6/2018 9:23:05 PM by Zach Taylor					
5	(modified after loading)					
Method Info	Alditol lab.					



Instrument 1 7/6/2018 9:36:52 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\088F0104.D Sample Name: 4-Nitro

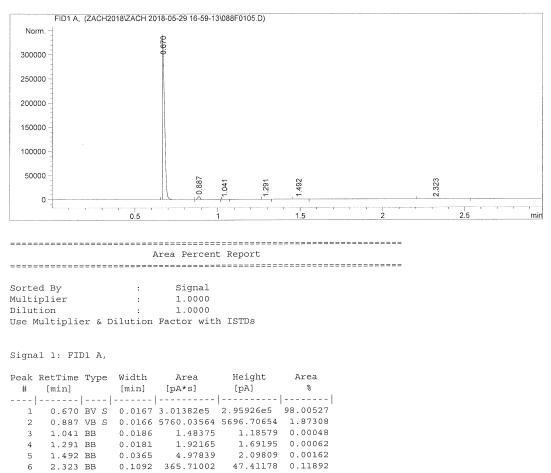
*					
Acq. Operator	:	Zach Taylor	Seq. Line : 1		
Acq. Instrument	:	Instrument 1	Location : Vial 88		
Injection Date	:	29-May-18, 17:12:11	Inj : 4		
			Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-29 16-59-13\Z4.M		
Last changed	:	5/29/2018 3:59:16 PM by	Zach Taylor		
Analysis Method	:	$C: \ CHEM32 \ 1 \ ETHODS \ 24$.	M		
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor			
		(modified after loading)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 9:36:53 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\088F0105.D Sample Name: 4-Nitro

Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	29-May-18, 17:16:10	Inj: 5	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-29 16-59-13\Z4.M	
Last changed	:	5/29/2018 3:59:16 PM by Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M		
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor		
		(modified after loading	g)	
Method Info	:	Alditol lab.		



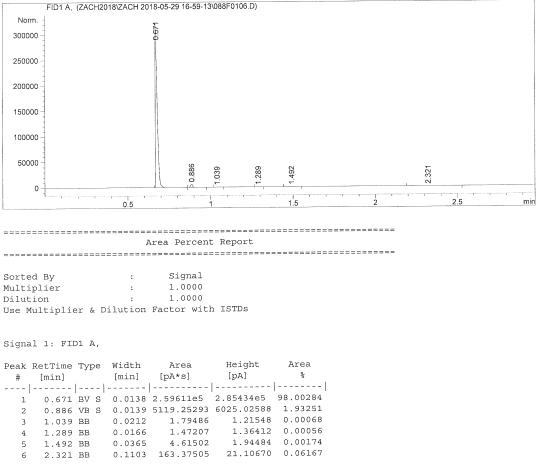
3.07516e5 3.01676e5

Instrument 1 7/6/2018 9:36:55 PM Zach Taylor

Totals :

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\088F0106.D Sample Name: 4-Nitro

	= = :		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	29-May-18, 17:20:10	Inj: 6
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-29 16-59-13\Z4.M
Last changed	:	5/29/2018 3:59:16 PM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	Ĩ
Last changed	:	7/6/2018 9:23:05 PM by Z	Lach Taylor
		(modified after loading)	
Method Info	:	Alditol lab.	



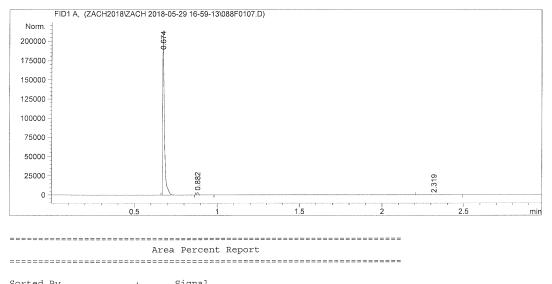
Totals :

2.64901e5 2.91485e5

Instrument 1 7/6/2018 9:36:57 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\088F0107.D Sample Name: 4-Nitro

Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	29-May-18, 17:24:09	Inj: 7			
			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-29 16-59-13\Z4.M			
Last changed	:	5/29/2018 3:59:16 PM by	Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	[
Last changed	:	7/6/2018 9:23:05 PM by Z	ach Taylor			
		(modified after loading)				
Method Info	:	Alditol lab.				



Sorced by		:	SIG	IdT	
Multiplier		:	1.00	000	
Dilution		:	1.00	000	
Use Multiplier	&	Dilution	Factor	with	ISTDs

Signal 1: FID1 A,

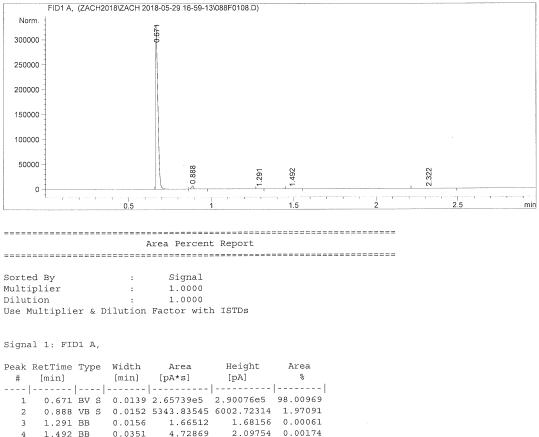
#			[min]	Area [pA*s]	[pA]	Area %
1	0.674	BB S	0.0113	1.42429e5	1.86597e5	98.33766
2	0.882	BB S	0.0116	2363.96118	3275.75049	1.63216
3	2.319	BB	0.0917	43.71666	5.81511	0.03018
Totals	3:			1.44836e5	1.89879e5	

*** End of Report ***

Instrument 1 7/6/2018 9:36:59 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\088F0108.D Sample Name: 4-Nitro

Acq. Operator	ch Taylor Seq. L	ine : 1
Acq. Instrument	strument 1 Locat	ion : Vial 88
Injection Date	-May-18, 17:28:08	Inj: 8
	Inj Vol	ume : l µl
Acq. Method	\Chem32\1\DATA\ZACH2018\ZACH 2018-0	5-29 16-59-13\Z4.M
Last changed	29/2018 3:59:16 PM by Zach Taylor	
Analysis Method	\CHEM32\1\METHODS\Z4.M	
Last changed	6/2018 9:23:05 PM by Zach Taylor	
	odified after loading)	
Method Info	ditol lab.	



4 1.492 BB 0.0351 4.72869 2.09754 0.00174 5 2.322 BB 0.0934 46.19363 6.08113 0.01704

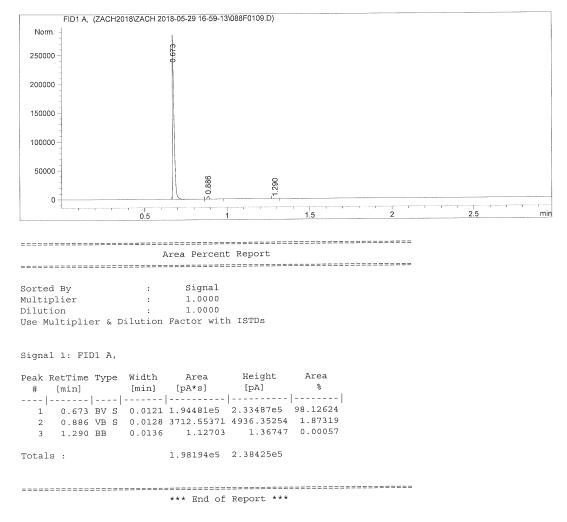
Totals : 2.71135e5 2.96088e5

*** End of Report ***

Instrument 1 7/6/2018 9:37:01 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\088F0109.D Sample Name: 4-Nitro

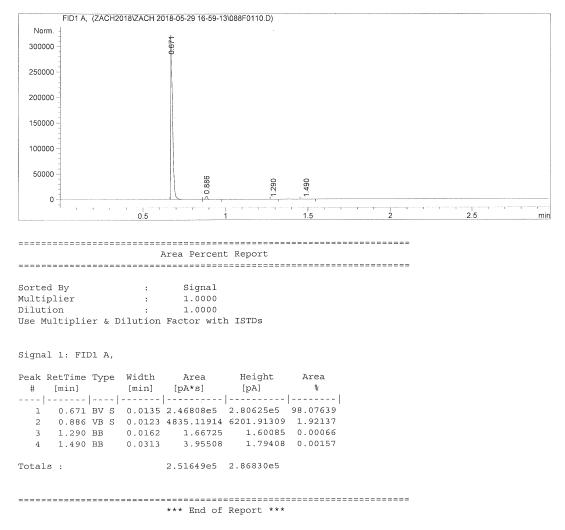
Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	29-May-18, 17:32:07	Inj : 9			
-			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-29 16-59-13\Z4.M			
Last changed	:	5/29/2018 3:59:16 PM b	y Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M			
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor			
		(modified after loadin	a)			
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 9:37:03 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\088F0110.D Sample Name: 4-Nitro

	= == :			
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	29-May-18, 17:36:09	Inj : 10	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-29 16-59-13\Z4.M	
Last changed	:	5/29/2018 3:59:16 PM 1	by Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M	
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor	
		(modified after loading	ng)	
Method Info	:	Alditol lab.		



Instrument 1 7/6/2018 9:37:04 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\088F0111.D Sample Name: 4-Nitro

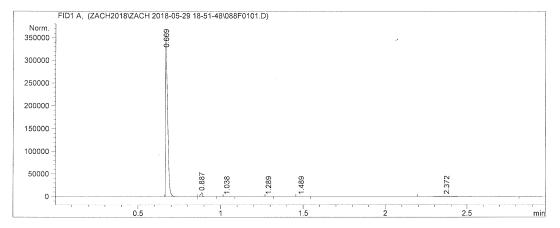
Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Injection Date : 29-May-18, 17:40:08 Inj : 11 Inj Volume : 1 µl Acq. Method : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 16-59-13\Z4.M Last changed : 5/29/2018 3:59:16 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab.

FI	ID1 A, (ZACH2018	ZACH 2018-05	5-29 16-59-13	\088F0111.D)					
Norm		0.672							
200000 -									
150000 -									
100000									
50000			0.885	1.288					
0 +		0.5	1^1^1 1 1	i	1.5	······································	2	2.5	min
		Area	Percent	Report					
		=========		=======================================					
Sorted By Multiplie Dilution Use Multi		:	Signal 1.0000 1.0000 ctor with	ı ISTDs					
Signal 1:	FID1 A,								
# (mi	Fime Type W [n] 	[min] [p	A*s]	Height [pA]	Area %				
1 0. 2 0.	.672 BV S (.885 VB S ().0122 2.1).0126 394	L2131e5 19.24731	2.75414e5 5228.39844	98.17169				
Totals :		2.1	L6082e5	2.80644e5					
		***	* End of	Report ***			===		

Instrument 1 7/6/2018 9:37:06 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 18-51-48\088F0101.D Sample Name: 4-Nitro

Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	29-May-18, 18:53:01	Inj: 1			
			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-29 18-51-48\Z4.M			
Last changed	:	5/29/2018 3:59:16 PM b	y Zach Taylor			
Analysis Method	4	C:\CHEM32\1\METHODS\Z4	. M			
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor			
		(modified after loading	g)			
Method Info	:	Alditol lab.				



Area Percent Report

•

Sort	ed By		:	Sig	nal	
Multiplier			:	1.00	000	
Dilu	ution		:	1.00	000	
Use	Multiplier	&	Dilution	Factor	with	ISTDs

Signal 1: FID1 A,

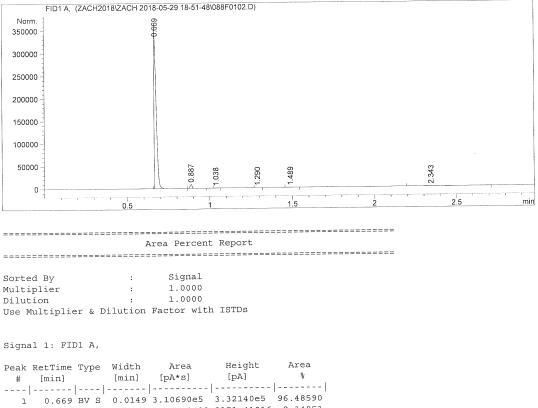
= =

Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.669	BV S	0.0150	3.04895e5	3.24206e5	95.33620
2	0.887	VB S	0.0119	6947.85400	8568.84180	2.17249
3	1.038	BB	0.0188	2.28733	1.80713	0.00072
4	1.289	BB	0.0147	1.60772	1.76024	0.00050
5	1.489	BB	0.0319	5.93871	2.80066	0.00186
6	2.372	BB	0.1104	7957.60352	959.15961	2.48823
Totals	:			3.19810e5	3.33740e5	

Instrument 1 7/6/2018 9:37:31 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 18-51-48\088F0102.D Sample Name: 4-Nitro

Acq. Operator	: Zach Taylor Seq. Line : 2	1					
Acq. Instrument	: Instrument 1 Location : Via	al 88					
	: 29-May-18, 18:57:00 Inj : 2	2					
	Inj Volume : 1 p	اد					
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 18-5	51-48\Z4.M					
Last changed	: 5/29/2018 3:59:16 PM by Zach Taylor						
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M						
Last changed	: 7/6/2018 9:23:05 PM by Zach Taylor						
2	(modified after loading)						
Method Info	: Alditol lab.						



1	0.009	μv	0	0.0112	5.1005000		
2	0.887	VB	S	0.0147	6918.38428	8171.41016	2.14853
3	1.038	BB		0.0163	1.82323	1.72897	0.00057
4	1.290	BB		0.0150	1.68746	1.78886	0.00052
	1.489			0.0314	5.74289	2.76551	0.00178
-	2.343			0.1072	4387.97852	547.00543	1.36270

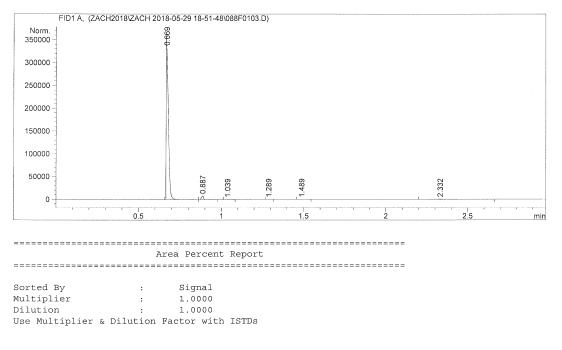
Totals :

3.22006e5 3.40865e5

Instrument 1 7/6/2018 9:37:33 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 18-51-48\088F0103.D Sample Name: 4-Nitro

=======================================				
Acq. Operator	Zach Taylor Seq. Line : 1			
Acq. Instrument	Instrument 1 Location : Vial	L 88		
Injection Date	29-May-18, 19:01:01 Inj : 3			
	Inj Volume : 1 µl	L		
Acq. Method	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 18-51	l-48∖Z4.M		
Last changed	5/29/2018 3:59:16 PM by Zach Taylor			
Analysis Method	C:\CHEM32\1\METHODS\Z4.M			
Last changed	7/6/2018 9:23:05 PM by Zach Taylor			
	(modified after loading)			
Method Info	Alditol lab.			



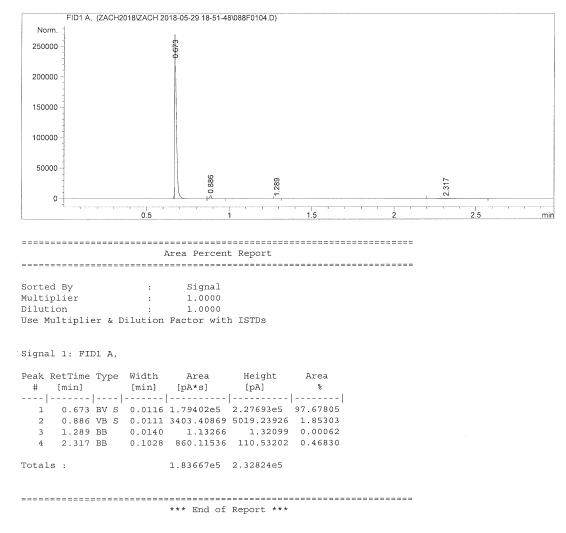
Signal 1: FID1 A,

Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.669	BV S	0.0148	3.17450e5	3.42772e5	97.14309
2	0.887	VB S	0.0152	6664.15430	7475.63232	2.03930
3	1.039	BB	0.0182	2.05062	1.68229	0.00063
4	1.289	BB	0.0155	1.82303	1.85254	0.00056
5	1.489	BB	0.0319	5.71959	2.70132	0.00175
6	2.332	BB	0.1146	2662.23999	333.83701	0.81467
Totals	:			3.26786e5	3.50588e5	

Instrument 1 7/6/2018 9:37:35 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 18-51-48\088F0104.D Sample Name: 4-Nitro

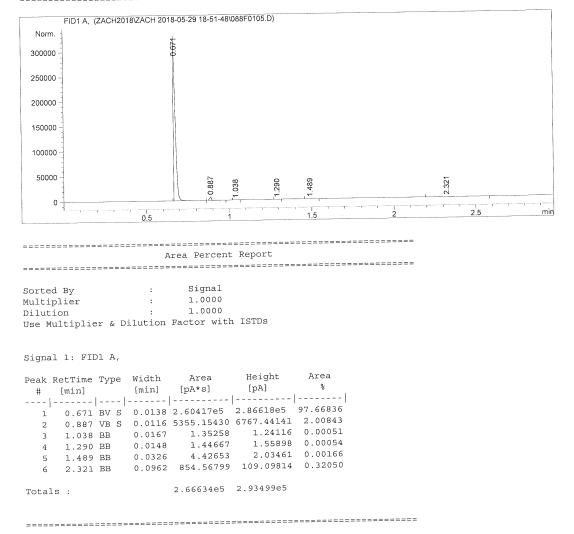
==================					
Acq. Operator	:	Zach Taylor	Seq. Line : 1		
Acq. Instrument	:	Instrument 1	Location : Vial 88		
Injection Date	:	29-May-18, 19:05:00	Inj : 4		
			Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-29 18-51-48\Z4.M		
Last changed	:	5/29/2018 3:59:16 PM by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M			
Last changed	:	7/6/2018 9:23:05 PM by Z	ach Taylor		
		(modified after loading)			
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 9:37:37 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 18-51-48\088F0105.D Sample Name: 4-Nitro Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Instrument : 29-May-18, 19:09:00 Inj : 5

intection Date	:	29-May-18, 19:00:00
5		Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 18-51-48\Z4.I
Last changed		5/29/2018 3:59:16 PM by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor
		(modified after loading)
Method Info	:	Alditol lab.



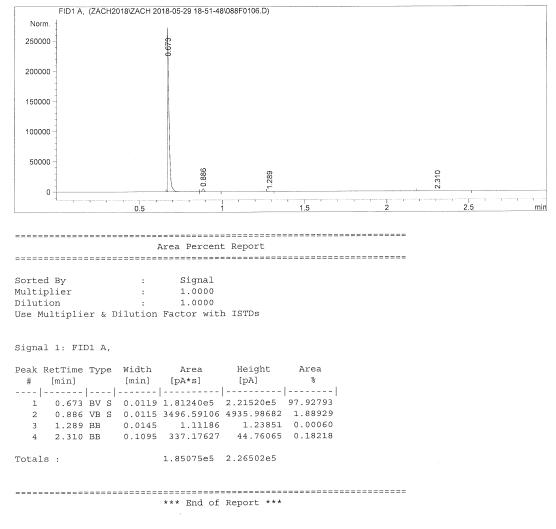
Instrument 1 7/6/2018 9:37:39 PM Zach Taylor

Page 1 of 1

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Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 18-51-48\088F0106.D Sample Name: 4-Nitro

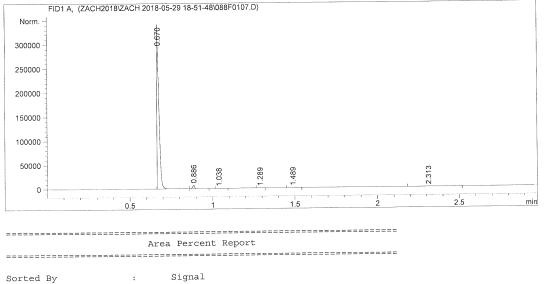
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	29-May-18, 19:12:59	Inj: 6
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-29 18-51-48\Z4.M
Last changed	:	5/29/2018 3:59:16 PM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	I
Last changed	:	7/6/2018 9:23:05 PM by Z	ach Taylor
		(modified after loading)	
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 9:37:40 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 18-51-48\088F0107.D Sample Name: 4-Nitro

Acq. Operator	: Zach Taylor	Seq. Line : 1				
Acq. Instrument	: Instrument 1	Location : Vial 88				
	: 29-May-18, 19:17:00	Inj : 7				
3	-	Inj Volume : 1 µl				
Acg. Method	: C:\Chem32\1\DATA\ZACH201	.8\ZACH 2018-05-29 18-51-48\Z4.M				
		5/29/2018 3:59:16 PM by Zach Taylor				
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	C:\CHEM32\1\METHODS\Z4.M				
Last changed	: 7/6/2018 9:23:05 PM by 2	Mach Taylor				
2	(modified after loading)					
Method Info	: Alditol lab.					



1.0000 Multiplier : 1.0000 Dilution . Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

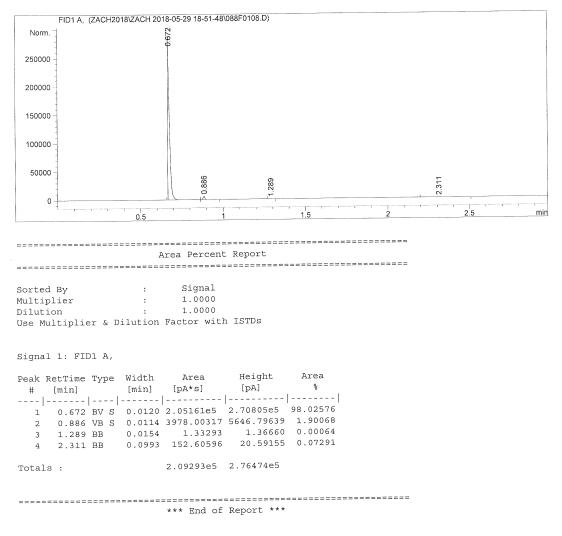
Peak Re	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.670	BV S	0.0144	2.80921e5	2.92598e5	97.86116
2	0.886	VB S	0.0135	5801.82080	7097.06689	2.02112
3	1.038	BB	0.0190	1.74425	1.35664	0.00061
4	1.289	BB	0.0154	1.68174	1.71897	0.00059
5	1.489	BB	0.0341	4.87395	2.17496	0.00170
6	2.313	BB	0.1074	329.62985	44.00717	0.11483
Totals	:			2.87060e5	2.99744e5	

Totals :

Instrument 1 7/6/2018 9:37:42 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 18-51-48\088F0108.D Sample Name: 4-Nitro

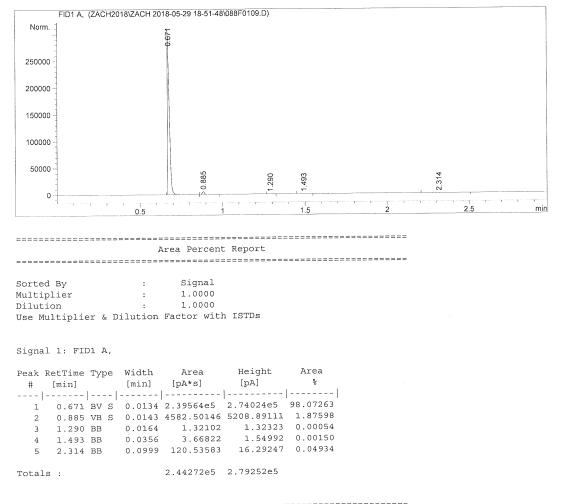
	:					
Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
		29-May-18, 19:21:00	Inj: 8			
5		-	Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-29 18-51-48\Z4.M			
Last changed	:	5/29/2018 3:59:16 PM by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M				
Last changed	:	7/6/2018 9:23:05 PM by 3	Zach Taylor			
		(modified after loading)			
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 9:37:44 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 18-51-48\088F0109.D Sample Name: 4-Nitro

Acq. Operator	:	Zach Taylor	Seq. Line : 1		
Acq. Instrument	:	Instrument 1	Location : Vial 88		
Injection Date	:	29-May-18, 19:25:01	Inj : 9		
			Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-29 18-51-48\Z4.M		
Last changed	:	5/29/2018 3:59:16 PM	by Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M		
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor		
		(modified after loadi	ng)		
Method Info	:	Alditol lab.			

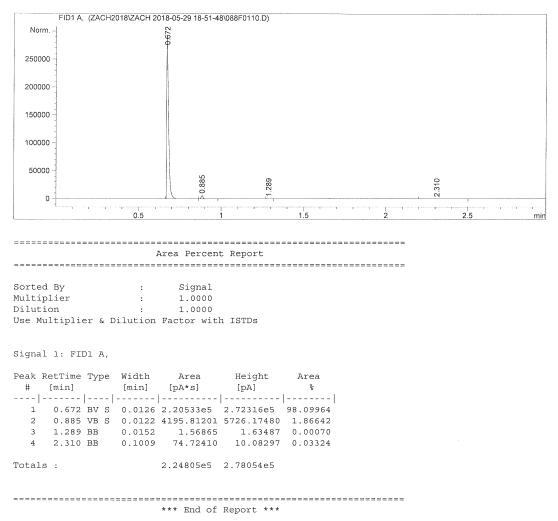


*** End of Report ***

Instrument 1 7/6/2018 9:37:46 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 18-51-48\088F0110.D Sample Name: 4-Nitro

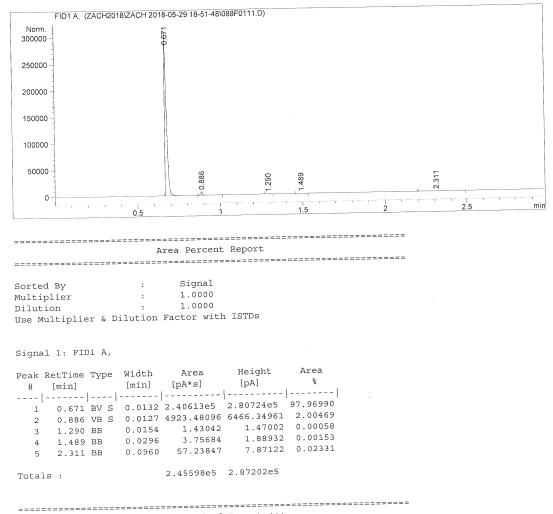
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Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	29-May-18, 19:29:00	Inj : 10
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2C	018\ZACH 2018-05-29 18-51-48\Z4.M
Last changed	:	5/29/2018 3:59:16 PM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
		(modified after loading	1)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 9:37:48 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 18-51-48\088F0111.D Sample Name: 4-Nitro

	= =		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument			Location : Vial 88
		29-May-18, 19:33:00	Inj : 11
Injection Date	•	25 May 107 19:000.00	Inj Volume : 1 µl
			18\ZACH 2018-05-29 18-51-48\Z4.M
Acq. Method	:	C:\Chem32\1\DATA\ZACH2C	18/ZACH 2018-03-23 10 31 10/21
Last changed	:	5/29/2018 3:59:16 PM by	Zach Taylor
Analysis Method		C:\CHEM32\1\METHODS\Z4.	M
		7/6/2018 9:23:05 PM by	Zach Tavlor
Last changed	:		
		(modified after loading	1)
Method Info	:	Alditol lab.	

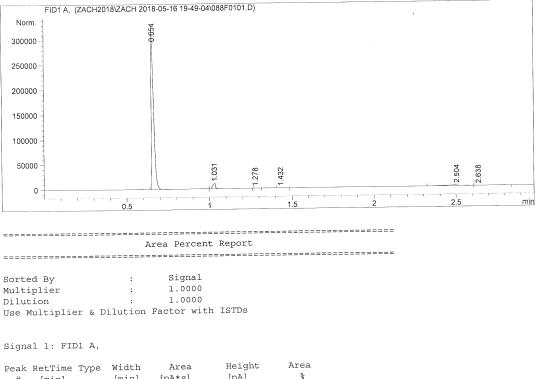


*** End of Report ***

Instrument 1 7/6/2018 9:37:50 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\088F0101.D Sample Name: 4-cyano-4

Acq. Operator	:	Zach Taylor	Seq. Line : 1		
Acq. Instrument			Location : Vial 88		
		16-May-18, 19:50:04	Inj: 1		
injection bacc		I I I I I I I I I I I I I I I I I I I	nj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH	2018-05-16 19-49-04\Z1.M		
Last changed	:	5/16/2018 7:43:44 PM by Zach Ta	ylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M			
Last changed	:	7/6/2018 9:23:05 PM by Zach Tay	lor		
		(modified after loading)			
Method Info	:	Alditol lab.			

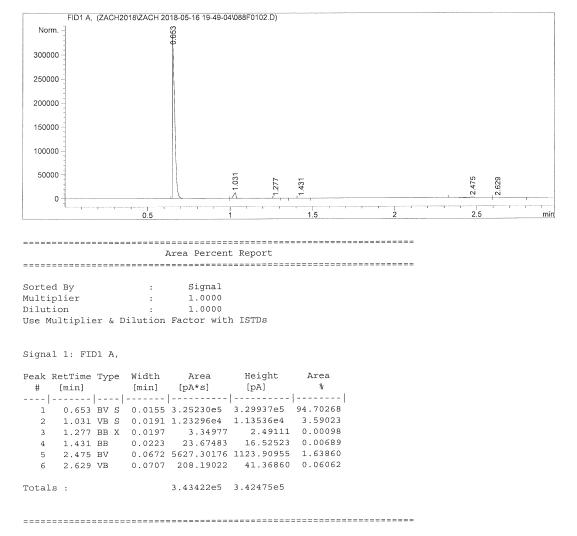


Peak Re	tTime	Type	wiath	Area	nergiic	HI CU
# [min]		[min]	[pA*s]	[pA]	8
1	0.654		0.0173	3.13711e5	2.92288e5	93.82697
2	1.031		0.0198	1.20648e4	1.04775e4	3.60842
	1.278		0.0169	1.67413	1.60990	0.00050
-	1.432			23.76753	15.52111	0.00711
5	2.504			8281.51660	1507.75049	2.47689
6	2.638		0.0707	267.82822	52.54392	0.08010
0	2,050	12				
Totals				3.34351e5	3.04343e5	

Instrument 1 7/6/2018 9:39:37 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\088F0102.D Sample Name: 4-cyano-4

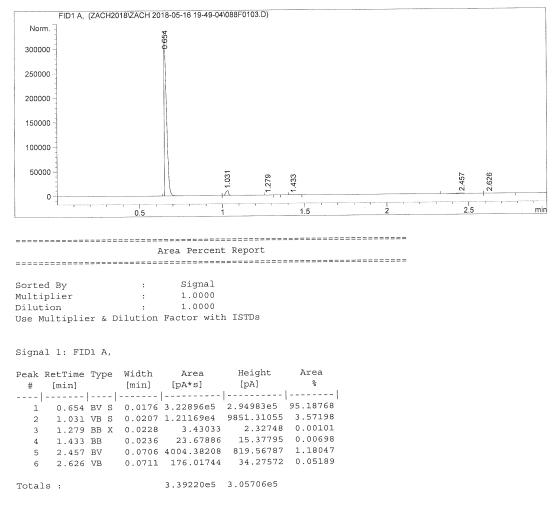
Zach Taylor	Seq. Line : 1					
Instrument 1	Location : Vial 88					
16-May-18, 19:54:09	Inj: 2					
	Inj Volume : 1 µl					
C:\Chem32\1\DATA\ZACH2018	\ZACH 2018-05-16 19-49-04\Z1.1	М				
5/16/2018 7:43:44 PM by Za	ach Taylor					
C:\CHEM32\1\METHODS\Z4.M						
7/6/2018 9:23:05 PM by Za	ch Taylor					
(modified after loading)						
Alditol lab.						
	<pre>Instrument 1 16-May-18, 19:54:09 C:\Chem32\1\DATA\ZACH2018 5/16/2018 7:43:44 PM by Z. C:\CHEM32\1\METHODS\Z4.M 7/6/2018 9:23:05 PM by Za. (modified after loading)</pre>	Instrument 1 Location : Vial 88 16-May-18, 19:54:09 Inj : 2 Inj Volume : 1 µl C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\Z1.1 5/16/2018 7:43:44 PM by Zach Taylor C:\CHEM32\1\METHODS\Z4.M 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)				



Instrument 1 7/6/2018 9:39:39 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\088F0103.D Sample Name: 4-cyano-4

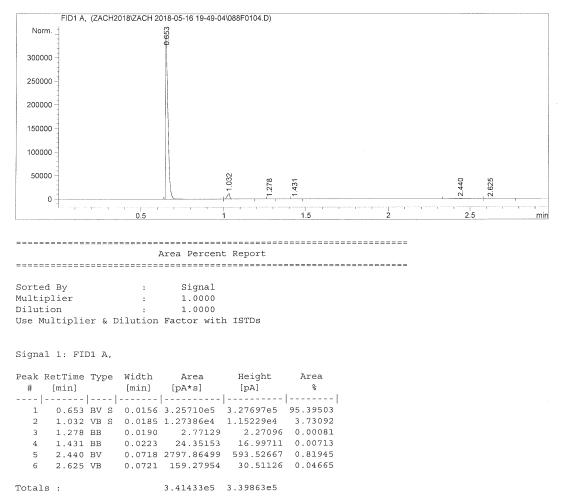
Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 3 Injection Date : 16-May-18, 19:58:09 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\Z1.M Acq. Method : 5/16/2018 7:43:44 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 9:39:40 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\088F0104.D Sample Name: 4-cyano-4

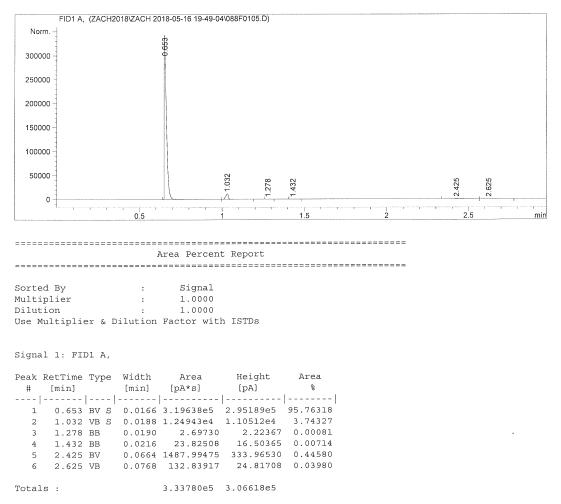
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	16-May-18, 20:02:09	Inj : 4	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-16 19-49-04\Z1.M	
Last changed	:	5/16/2018 7:43:44 PM	by Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M	
Last changed	:	7/6/2018 9:23:05 PM k	y Zach Taylor	
		(modified after loadi	ng)	
Method Info	:	Alditol lab.		



Instrument 1 7/6/2018 9:39:42 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\088F0105.D Sample Name: 4-cyano-4

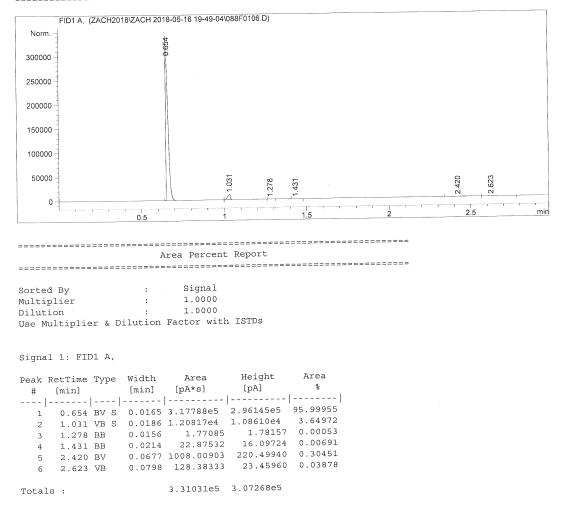
pre name. i cyuno i						
	= = :					
Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	16-May-18, 20:06:09	Inj: 5			
			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018	\ZACH 2018-05-16 19-49-04\Z1.M			
Last changed	:	5/16/2018 7:43:44 PM by Za	ach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M				
Last changed	:	7/6/2018 9:23:05 PM by Zac	ch Taylor			
		(modified after loading)				
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 9:39:44 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\088F0106.D Sample Name: 4-cyano-4

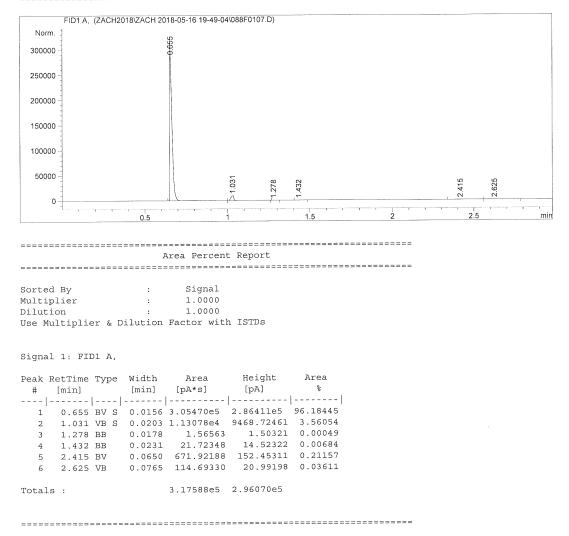
Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 88				
		16-May-18, 20:10:11	Inj: 6				
Injection bace	·	10 may 10, 11 may	Inj Volume : 1 µl				
Acq. Method Last changed Analysis Method Last changed	:;	C:\Chem32\1\DATA\ZACH2 5/16/2018 7:43:44 PM k C:\CHEM32\1\METHODS\Z4 7/6/2018 9:23:05 PM by (modified after loading)	.M 7 Zach Taylor				
Method Info	:	Alditol lab.					



Instrument 1 7/6/2018 9:39:45 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\088F0107.D Sample Name: 4-cyano-4

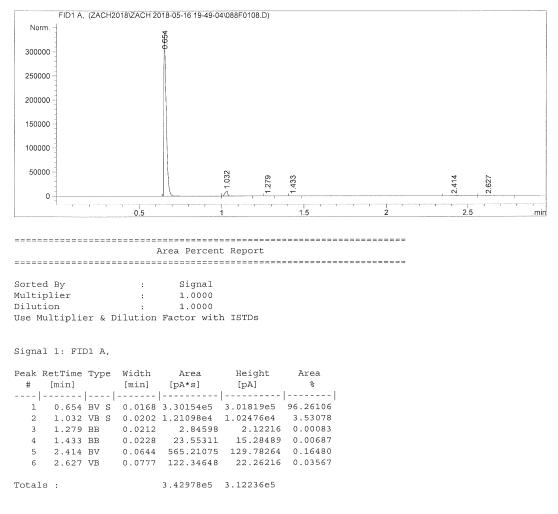
_____ Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 7 Injection Date : 16-May-18, 20:14:11 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\Z1.M Acq. Method Last changed : 5/16/2018 7:43:44 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 9:39:47 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\088F0108.D Sample Name: 4-cyano-4

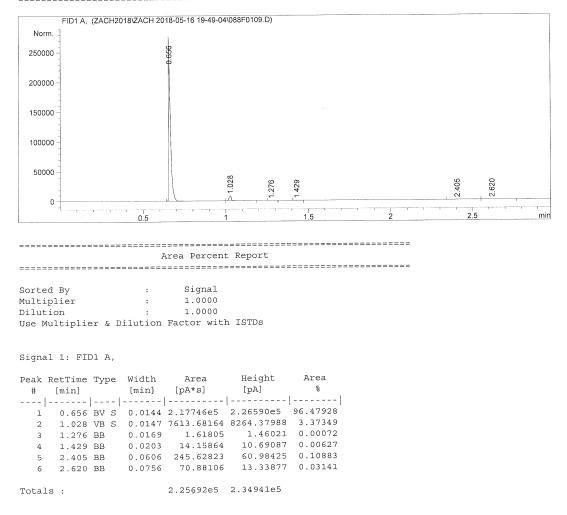
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Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	16-May-18, 20:18:12	Inj : 8	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-16 19-49-04\Z1.M	
Last changed	:	5/16/2018 7:43:44 PM	by Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M	
Last changed	:	7/6/2018 9:23:05 PM k	y Zach Taylor	
		(modified after loadi	ng)	
Method Info	:	Alditol lab.	-	



Instrument 1 7/6/2018 9:39:49 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\088F0109.D Sample Name: 4-cyano-4

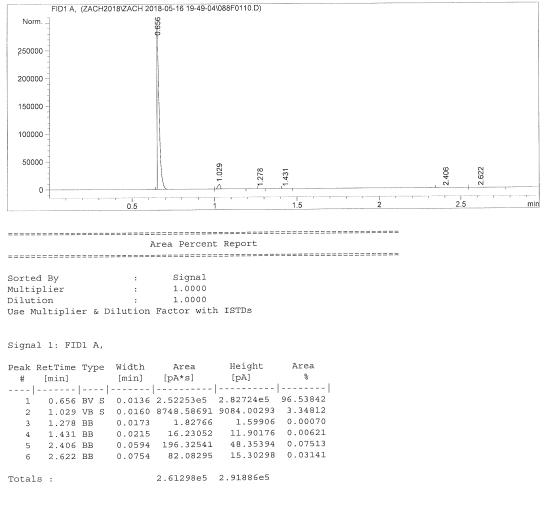
Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Inj: 9 Injection Date : 16-May-18, 20:22:12 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\Z1.M Acq. Method Last changed : 5/16/2018 7:43:44 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info



Instrument 1 7/6/2018 9:39:51 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\088F0110.D Sample Name: 4-cyano-4

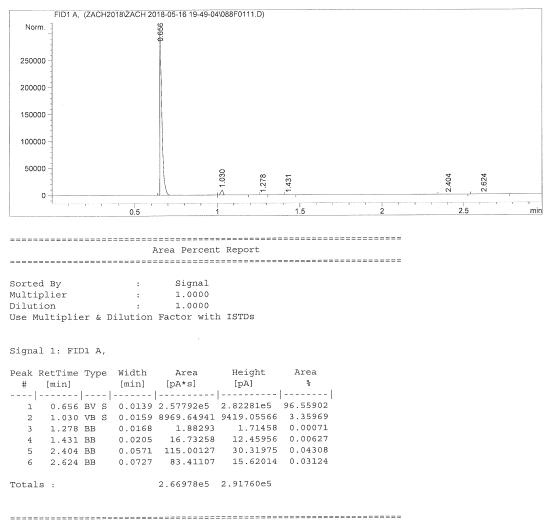
<u> </u>					
Acq. Operator	ch Taylor Seq. Line :	1			
Acq. Instrument	strument 1 Location : V	ial 88			
Injection Date	-May-18, 20:26:13 Inj :	10			
-	Inj Volume : 1	μl			
Acq. Method	\Chem32\1\DATA\ZACH2018\ZACH 2018-05-16 19	-49-04\Z1.M			
Last changed	16/2018 7:43:44 PM by Zach Taylor				
Analysis Method	\CHEM32\1\METHODS\Z4.M				
Last changed	6/2018 9:23:05 PM by Zach Taylor				
	odified after loading)				
Method Info	ditol lab.				



Instrument 1 7/6/2018 9:39:53 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 19-49-04\088F0111.D Sample Name: 4-cyano-4

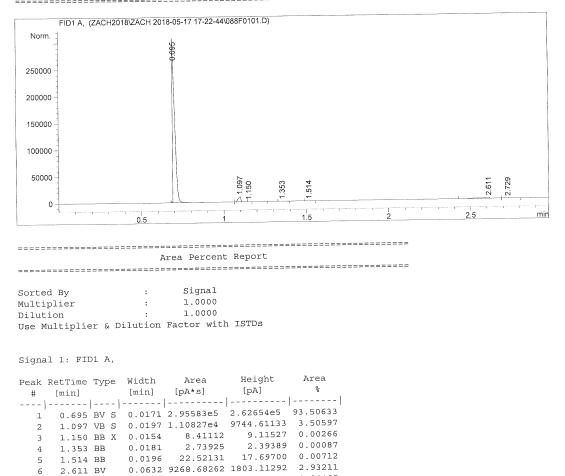
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Acq. Instrument	:	Instrument 1	Location : Vial 88		
Injection Date	:	16-May-18, 20:30:13	Inj : 11		
			Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-16 19-49-04\Z1.M		
Last changed	:	5/16/2018 7:43:44 PM]	by Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M		
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor		
		(modified after loadi	ng)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 9:39:54 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 17-22-44\088F0101.D Sample Name: 4-cyano-4 _____

Acq. Operator	:	Zach Taylor Seq. Line				
Acq. Instrument			:	Vial 88		
			:	1		
111/0001011 2000		Inj Volume	: :	1 µl		
Acq. Method		C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-1	7	17-22-44\Z1.M		
Last changed	:	5/16/2018 7:43:44 PM by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M				
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor				
		(modified after loading)				
Method Info	:	Alditol lab.				



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0.0286 142.08826 74.50929 0.04495

Instrument 1 7/6/2018 9:40:43 PM Zach Taylor

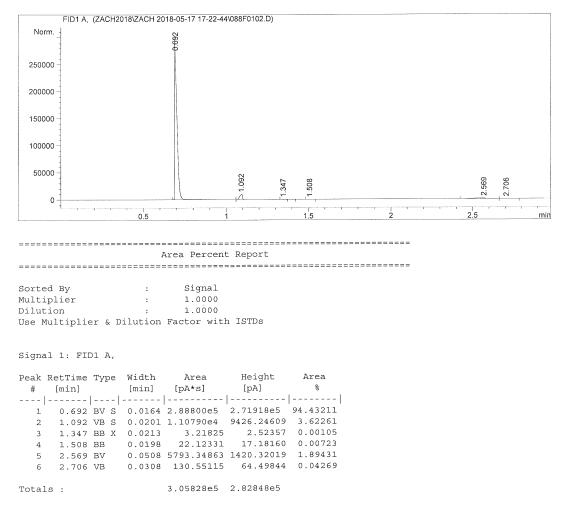
6

7

2.729 VB

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 17-22-44\088F0102.D Sample Name: 4-cyano-4

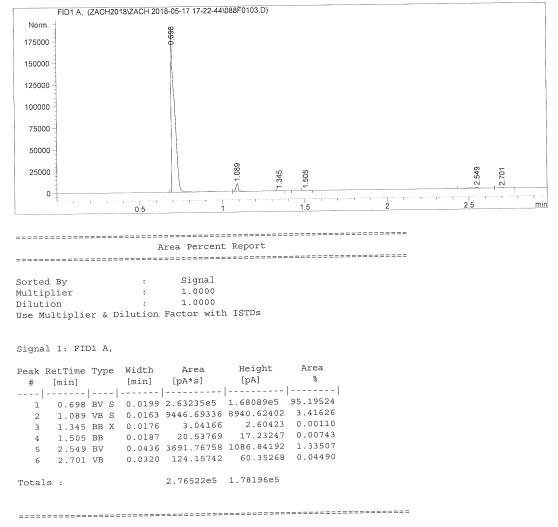
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Acq. Instrument	:	Instrument 1	Location : Vial 88		
Injection Date	:	17-May-18, 17:27:43	Inj : 2		
			Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-17 17-22-44\Z1.M		
Last changed	:	5/16/2018 7:43:44 PM by	Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M		
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor		
		(modified after loading	;)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 9:40:45 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 17-22-44\088F0103.D Sample Name: 4-cyano-4

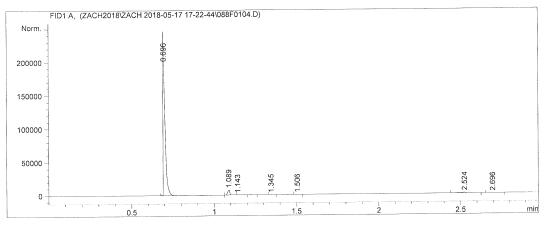
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Acq. Operator	:	Zach Taylor	Seq. Line : l
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	17-May-18, 17:31:41	Inj: 3
2			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\Z	ACH 2018-05-17 17-22-44\Z1.M
Last changed		5/16/2018 7:43:44 PM by Zac	h Taylor
Analysis Method		C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Zach	Taylor
		(modified after loading)	
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 9:40:46 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 17-22-44\088F0104.D Sample Name: 4-cyano-4

Acq. Operator	:	Zach Taylor	Seq. Line : 1							
Acq. Instrument	:	Instrument 1	Location : Vial 88							
Injection Date	:	17-May-18, 17:35:44	Inj : 4							
5		-	Inj Volume : 1 µl							
Acq. Method	:	C:\Chem32\1\DATA\ZACH2)18\ZACH 2018-05-17 17-22-44\Z1.M							
Last changed	:	5/16/2018 7:43:44 PM by	/ Zach Taylor							
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	M							
Last changed										
		(modified after loading	3)							
Method Info	:	Alditol lab.								



Area Percent Report

		 ==	==	==	==	===	-	==:	 	==:	= = =	 	==:	= = :	= =	===	==	==	
Sorted By	:	Si	gn	al															

DOLCCU DI	•		
Multiplier	:	1.0000	
Dilution	:	1.0000	
Use Multiplier	& Dilution	Factor with IST	Ds

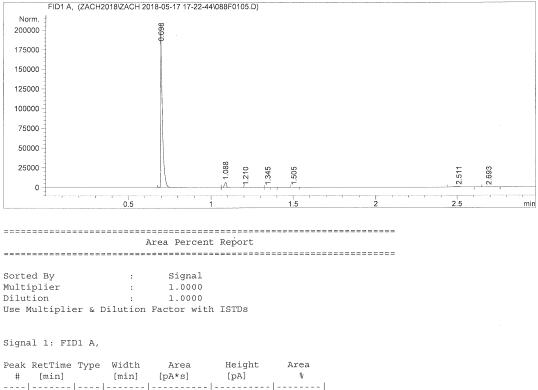
Signal 1: FID1 A,

Peak Re	etTime [min]	Туре	1	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.696	BV S	ร่	0.0146	1.93203e5	1.98136e5	95.63907
2	1.089	VB S	5	0.0147	6790.99609	7375.04492	3.361.67
3	1.143	BB 2	ĸ	0.0127	5.06884	6.62887	0.00251
4	1.345	BB		0.0169	1,68300	1.62556	0.00083
5	1.506	BB		0.0170	13.36000	11.94750	0.00661
6	2.524	BB		0.0362	1922.81665	732.74420	0.95183
7	2.696	BB		0.0340	75.70658	33.92121	0.03748
					0.00010+5	2.06298e5	
Totals	:				2.02012e5	2.0629885	

Instrument 1 7/6/2018 9:40:48 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 17-22-44\088F0105.D Sample Name: 4-cyano-4

Acq. Operator	:	Zach Taylor	Seq. Line	: 1					
Acq. Instrument	:	Instrument 1	Location :	: Vial	. 88				
Injection Date	:	17-May-18, 17:39:44	Inj	: 5					
			Inj Volume :	: 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-05-17	17-22	2-44∖Z1.M				
Last changed	:	5/16/2018 7:43:44 PM	by Zach Taylor						
Analysis Method	:	C:\CHEM32\1\METHODS\2	34.M						
Last changed	:	7/6/2018 9:23:05 PM k	oy Zach Taylor						
		(modified after load	.ng)						
Method Info	:	Alditol lab.							

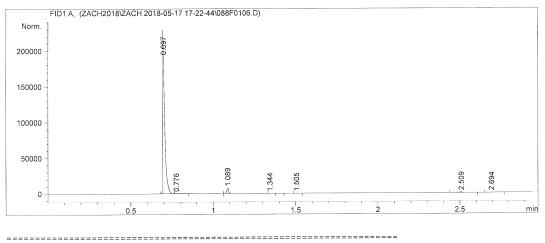


#	[min]	uin]		[min]	[pA*s]	[pA]	8
1	0.698	ВV	S	0.0126	1.60310e5	1.83440e5	95.96542
2	1.088	VB	S	0.0135	5438.19727	6653.60645	3.25545
3	1.210	VV	Х	0.0450	3.98350	1.47578	0.00238
4	1.345	VB	Х	0.0142	1.26452	1.44003	0.00076
5	1.505	BB		0.0159	10.99725	10.75267	0.00658
6	2.511	BB		0.0323	1227.85754	536.06311	0.73503
7	2.693	BB		0.0345	57.42937	26.07466	0.03438
Total	s :				1.67049e5	1.90669e5	

Instrument 1 7/6/2018 9:40:50 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 17-22-44\088F0106.D Sample Name: 4-cyano-4

Acq. Operator	:	Zach Taylor	Seq. Line : 1					
Acq. Instrument	:	Instrument 1	Location : Vial 88					
Injection Date	:	17-May-18, 17:43:45	Inj: 6					
			Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-17 17-22-44\Z1.M					
Last changed	:	5/16/2018 7:43:44 PM 1	by Zach Taylor					
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M					
Last changed	:	7/6/2018 9:23:05 PM by	y Zach Taylor					
		(modified after loading	ng)					
Method Info	:	Alditol lab.						



Area Percent Report

	=======		 :
Sorted By	:	Signal	

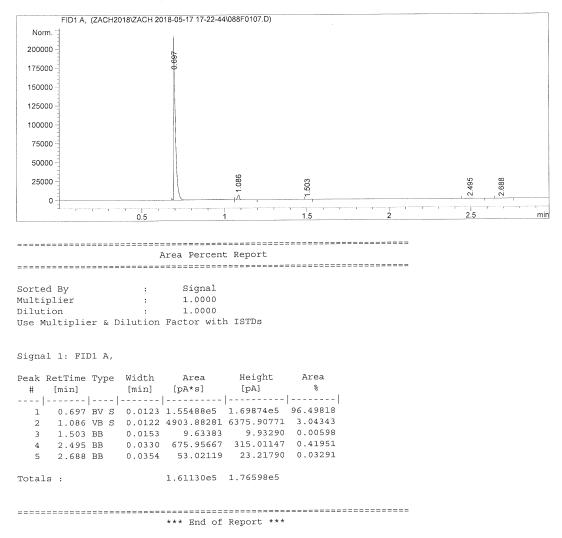
DOLCCU Dy	•	5191101	
Multiplier	:	1.0000	
Dilution	:	1.0000	
Use Multiplier	& Dilution	Factor with	ISTDs

Signal 1: FID1 A,

Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.697	BV S	0.0132	1.77237e5	1.91579e5	95.91676
2	0.776	вв х	0.0410	100.48692	37.30140	0.05438
3	1.089	VB S	0.0140	6279.27588	7345.58203	3.39820
4	1.344	вв х	0.0194	2.21344	1.90047	0.00120
5	1.505	BB	0.0161	11.89202	11.44323	0.00644
6	2.509	BB	0.0332	1085.62952	472.76343	0.58752
7	2.694	BB	0.0353	65.59811	28.91188	0.03550
Totals	:			1.84782e5	1.99477e5	

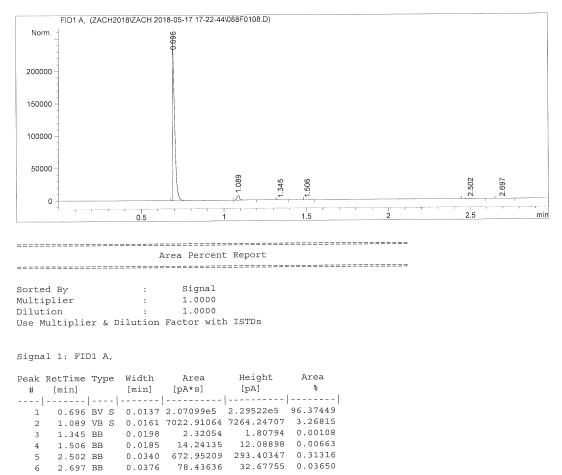
Instrument 1 7/6/2018 9:40:52 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 17-22-44\088F0107.D Sample Name: 4-cyano-4



Instrument 1 7/6/2018 9:40:54 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 17-22-44\088F0108.D Sample Name: 4-cyano-4



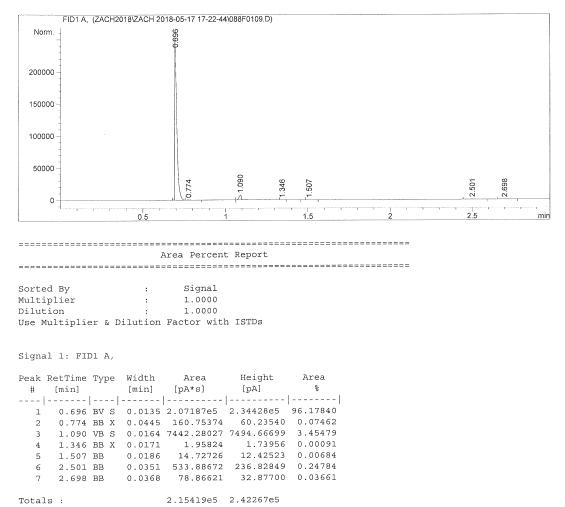
2.14890e5 2.37126e5

Instrument 1 7/6/2018 9:40:56 PM Zach Taylor

Totals :

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 17-22-44\088F0109.D Sample Name: 4-cyano-4

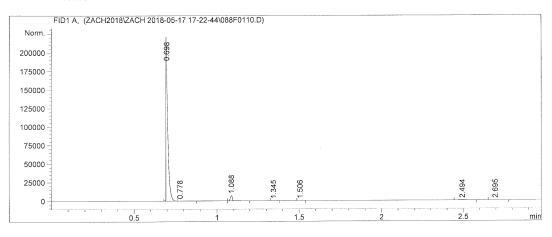
:	Zach Taylor	Seq. Line :		1		
:	Instrument 1	Location :	: 1	Vial 88		
:	17-May-18, 17:55:46	Inj :		9		
		5		*		
:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-17	1	7-22-44\Z1.M		
:	5/16/2018 7:43:44 PM	by Zach Taylor				
:	C:\CHEM32\1\METHODS\Z	4.M				
:	7/6/2018 9:23:05 PM b	y Zach Taylor				
	(modified after loadi	ng)				
:	Alditol lab.					
	:::::::::::::::::::::::::::::::::::::::	: 5/16/2018 7:43:44 PM : C:\CHEM32\1\METHODS\Z : 7/6/2018 9:23:05 PM b	<pre>: Instrument 1</pre>	<pre>: Instrument 1 Location : ' : 17-May-18, 17:55:46 Inj :</pre>		



Instrument 1 7/6/2018 9:40:57 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 17-22-44\088F0110.D Sample Name: 4-cyano-4

Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Inj : 10 Injection Date : 17-May-18, 17:59:47 Inj Volume : 1 µl Acq. Method : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-17 17-22-44\Z1.M Last changed : 5/16/2018 7:43:44 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Area Percent Report

Sorted Bv	:	Signal	

Mult	ziplier		:	1.00	000	
Dilu	ution		:	1.00	000	
Use	Multiplier	δe	Dilution	Factor	with	ISTDs

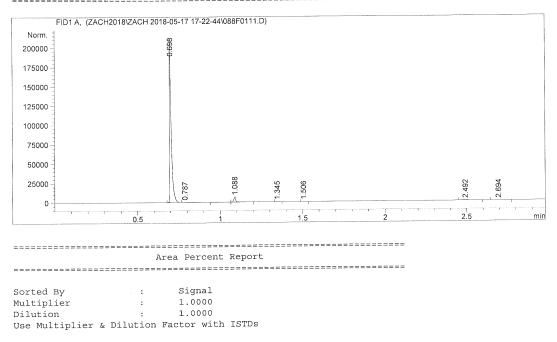
Signal 1: FID1 A,

Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
				[
1	0.698	BVS	0.0124	1.60091e5	1.86707e5	96.42265
2	0.778	вв х	0.0479	164.00487	50.99273	0.09878
3	1.088	VB S	0.0120	5353.87695	7134.59570	3.22464
4	1.345	BB	0.0154	1.41199	1.45045	0.00085
5	1.506	BB	0.0157	10.91961	10.92884	0.00658
6	2.494	BB	0.0330	345.03195	160.89117	0.20781
7	2.695	BB	0.0385	64.25204	25.28061	0.03870
Totals	:			1.66030e5	1.94091e5	

Instrument 1 7/6/2018 9:40:59 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 17-22-44\088F0111.D Sample Name: 4-cyano-4

ipic Name. 4 Cyano	· ·	1	
	- == :		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	17-May-18, 18:03:47	Inj : 11
5		-	Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-17 17-22-44\Z1.M
Last changed	;	5/16/2018 7:43:44 PM]	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor
-		(modified after loading	ng)
Method Info	:	Alditol lab.	



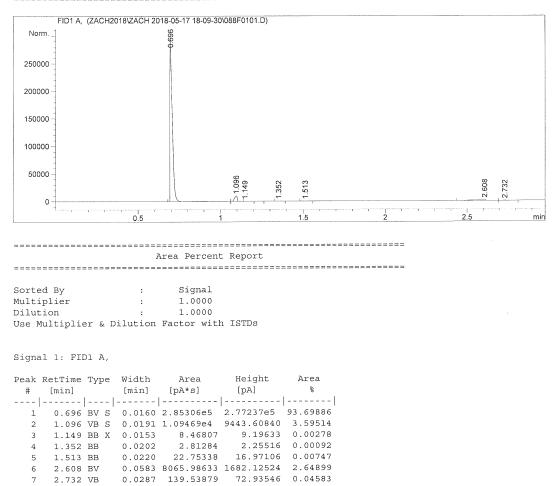
Signal 1: FID1 A,

Peak Re # [etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.698	BVS	0.0118	1.50139e5	1.86251e5	96.47978
2	0.787	вв х	0.0713	122.13081	23.07629	0.07848
3	1.088	VB S	0.0125	4969.48389	6242.24316	3.19340
4	1.345	BB	0.0148	1.44042	1.44308	0.00093
5	1.506	BB	0.0159	9.79893	9.59117	0.00630
6	2.492	BB	0.0333	322.61829	148.82449	0,20732
7	2.694	BB	0.0382	52.60411	21.46112	0.03380
Totals	:			1.55617e5	1.92698e5	

Instrument 1 7/6/2018 9:41:01 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 18-09-30\088F0101.D Sample Name: 4-cyano-4

***************	= = :		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	17-May-18, 18:10:33	Inj: 1
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\	ZACH 2018-05-17 18-09-30\Z1.M
Last changed	:	5/16/2018 7:43:44 PM by Za	ch Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Zac	h Taylor
		(modified after loading)	
Method Info	:	Alditol lab.	



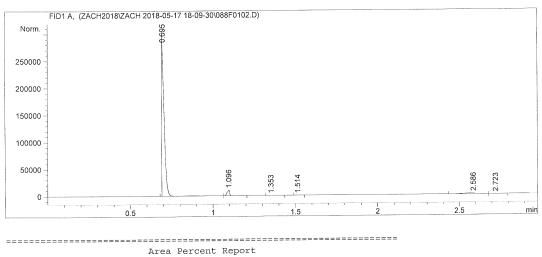
3.04492e5 2.88464e5

Instrument 1 7/6/2018 9:41:39 PM Zach Taylor

Totals :

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 18-09-30\088F0102.D Sample Name: 4-cyano-4

pro namo, i ojano	·	•	
	=		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	17-May-18, 18:14:32	Inj : 2
-		-	Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	H2018\ZACH 2018-05-17 18-09-30\Z1.M
Last changed	:	5/16/2018 7:43:44 PM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\2	34.M
Last changed	:	7/6/2018 9:23:05 PM k	by Zach Taylor
		(modified after load:	ing)
Method Info	:	Alditol lab.	



Sorted By		:	Sigr	nal	
Multiplier		:	1.00	000	
Dilution		:	1.00	000	
Use Multiplier	&	Dilution	Factor	with	ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.695	BV S	0.0162	2.95733e5	2.82503e5	94.53138
2	1.096	VB S	0.0180	1.09084e4	1.02736e4	3.48688
3	1.353	BB	0.0130	1.33276	2.10300	0.00043
4	1.514	BB	0.0202	22.03743	17.59639	0.00704
5	2.586	BV	0.0539	6045.74023	1414.49304	1.93253
6	2.723	VB	0.0306	130.61095	65.25286	0.04175

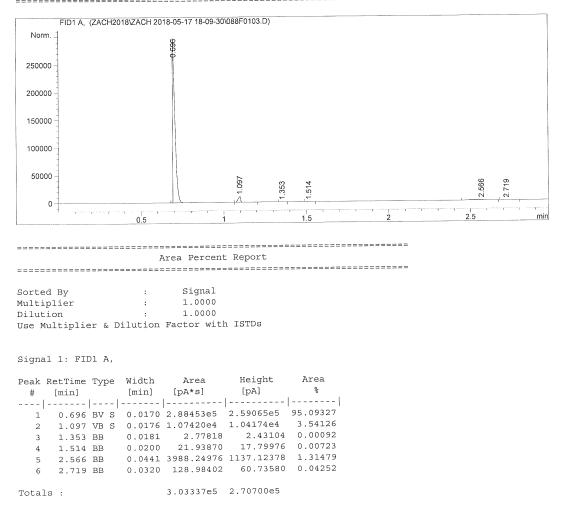
Totals :

3.12841e5 2.94276e5

Instrument 1 7/6/2018 9:41:41 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 18-09-30\088F0103.D Sample Name: 4-cyano-4

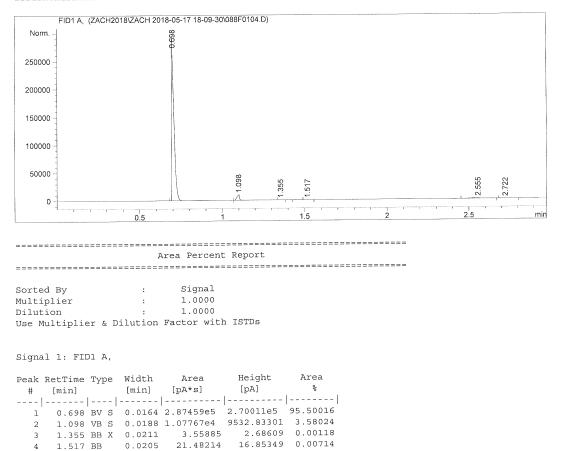
pre Name. 4 Cyano 4						
	= :					
Acq. Operator	:	Zach Taylor Seq. Line : 1				
Acq. Instrument	:	Instrument 1 Location : Vial 88				
Injection Date	:	17-May-18, 18:18:32 Inj : 3				
		Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-17 18-09-30\Z1.M				
Last changed	:	5/16/2018 7:43:44 PM by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M				
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor				
		(modified after loading)				
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 9:41:43 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 18-09-30\088F0104.D Sample Name: 4-cyano-4

Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Injection Date : 17-May-18, 18:22:32 Inj: 4 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-17 18-09-30\Z1.M Acq. Method : 5/16/2018 7:43:44 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



54.79642 0.04175

0.0394 2617.33105 882.90576 0.86953

3.01004e5 2.80501e5

0.0348 125.67253

2.555 BB

2.722 BB

Instrument 1 7/6/2018 9:41:45 PM Zach Taylor

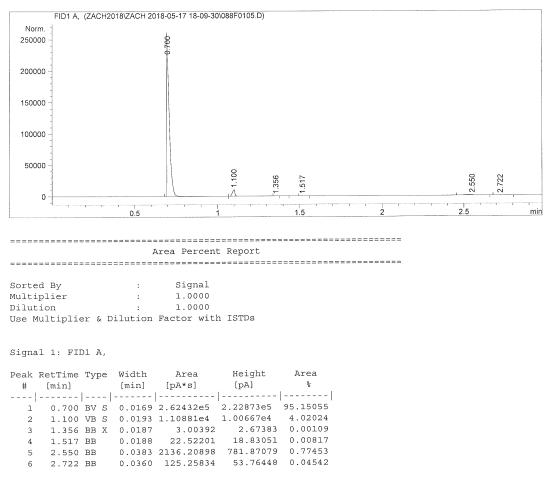
5

6

Totals :

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 18-09-30\088F0105.D Sample Name: 4-cyano-4

================	= == :			
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	17-May-18, 18:26:33	Inj : 5	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-17 18-09-30\Z1.M	
Last changed	:	5/16/2018 7:43:44 PM by	Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M		
Last changed	:	7/6/2018 9:23:05 PM by Z	ach Taylor	
		(modified after loading)		
Method Info	:	Alditol lab.		



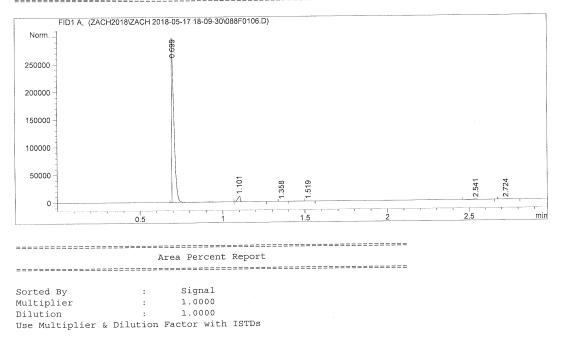
Totals :

2.75807e5 2.33797e5

Instrument 1 7/6/2018 9:41:47 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 18-09-30\088F0106.D Sample Name: 4-cyano-4

ipic Name, 4 Cyano	· -	I	
	:=:		=======================================
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	17-May-18, 18:30:31	Inj: 6
5			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-17 18-09-30\Z1.M
Last changed	:	5/16/2018 7:43:44 PM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z	54.M
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor
-		(modified after loadi	.ng)
Method Info	:	Alditol lab.	



Signal 1: FID1 A,

Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.699	BV S	0.0170	2.88150e5	2.57738e5	95.89886
2	1.101	VB S	0.0191	1.06837e4	9832.91211	3.55564
3	1.358	BB	0.0158	2.07933	2.19804	0.00069
4	1.519	BB	0.0189	21.07634	17.41391	0.00701
5	2.541	BB	0.0355	1492.69324	582.34839	0.49678
6	2.724	BB	0.0373	123.22968	50.51667	0.04101

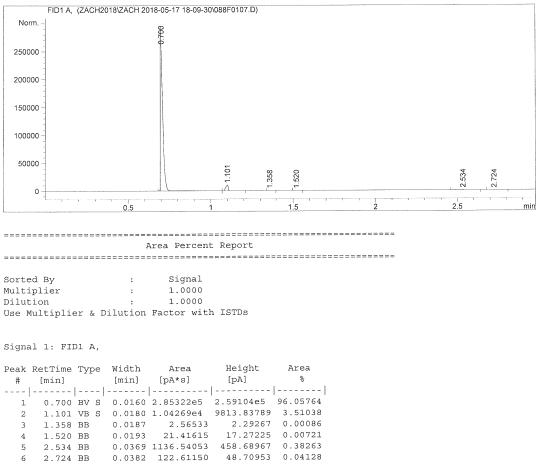
Totals :

3.00473e5 2.68224e5

Instrument 1 7/6/2018 9:41:48 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 18-09-30\088F0107.D Sample Name: 4-cyano-4

			*======================================
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	17-May-18, 18:34:33	Inj : 7
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-17 18-09-30\Z1.M
Last changed	:	5/16/2018 7:43:44 PM 3	oy Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z-	4.M
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor
		(modified after loadi:	ng)
Method Info	:	Alditol lab.	



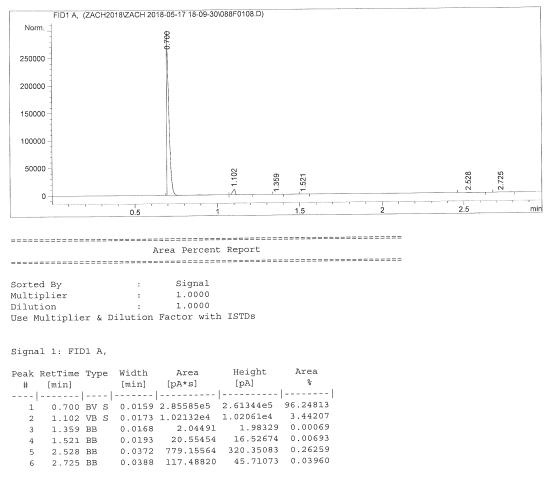
Totals :

2.97032e5 2.69445e5

Instrument 1 7/6/2018 9:41:50 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 18-09-30\088F0108.D Sample Name: 4-cyano-4

Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 8 Injection Date : 17-May-18, 18:38:33 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-17 18-09-30\Z1.M Acq. Method : 5/16/2018 7:43:44 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info



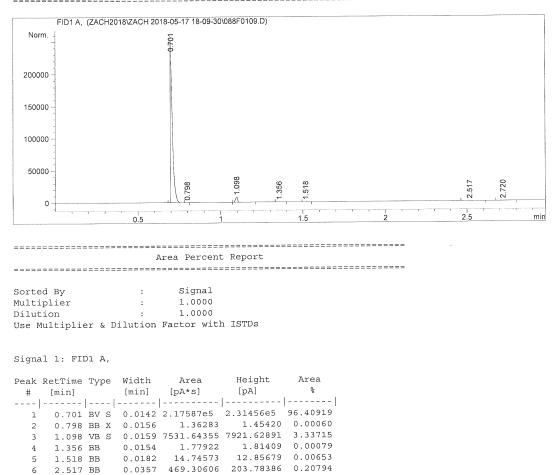
Totals :

2.96718e5 2.71934e5

Instrument 1 7/6/2018 9:41:52 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 18-09-30\088F0109.D Sample Name: 4-cyano-4

	= == :		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	17-May-18, 18:42:34	Inj : 9
-			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-17 18-09-30\Z1.M
Last changed	:	5/16/2018 7:43:44 PM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
		(modified after loading)
Method Info	:	Alditol lab.	



33.52520 0.03779

Totals : 2.25691e5 2.39631e5

0.0385

85.28947

Instrument 1 7/6/2018 9:41:54 PM Zach Taylor

2.720 BB

7

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 18-09-30\088F0110.D Sample Name: 4-cyano-4

Acq. Operator	: Zach Taylor	Seq. Line : 1	
Acq. Instrument	: Instrument 1	Location : Vial 88	
	: 17-May-18, 18:46:3		
		Inj Volume : 1 µl	
Acq. Method	: C:\Chem32\1\DATA\2	ACH2018\ZACH 2018-05-17 18-09-30	\Z1.M
	: 5/16/2018 7:43:44		
	: C:\CHEM32\1\METHOD		
	: 7/6/2018 9:23:05 H		
-	(modified after lo	ading)	
Method Info	: Alditol lab.		
			=
FID1 A, (ZAC	CH2018\ZACH 2018-05-17 18-09-3	30\088F0110.D)	
Norm.	00		
	0 0.7 00		
250000			
-			
200000			
-			
150000 -			
-			
100000 -			
-			
-			
50000		N C	~ (2
		1.102 359 521	518
0		<u> </u>	N
-		1 1.5 2	2.5
1 1	0.5		2.0
	0.5	· · · · · · · · · · · · · · · · · · ·	
, ,		-	=
	Area Percer	t Report	
	Area Percer		
	Area Percer	t Report	
	Area Percer	t Report	
Sorted By	Area Percer : Signal	t Report	
Sorted By Multiplier Dilution	Area Percer : Signal : 1.0000	t Report	
Sorted By Multiplier Dilution	Area Percer : Signal : 1.0000 : 1.0000	t Report	
Sorted By Multiplier Dilution Jse Multiplier &	Area Percer : Signal : 1.0000 : 1.0000 2 Dilution Factor wit	t Report	
Sorted By Multiplier Dilution Jse Multiplier & Signal 1: FID1 A	Area Percer : Signal : 1.0000 : 1.0000 Dilution Factor wit	t Report	
Sorted By Multiplier Dilution Jse Multiplier & Signal 1: FID1 A Peak RetTime Typ	Area Percer : Signal : 1.0000 : 1.0000 Dilution Factor wit	t Report th ISTDs Height Area	
Sorted By Multiplier Dilution Jse Multiplier & Signal 1: FID1 A Peak RetTime Typ # [min]	Area Percer : Signal : 1.0000 : 1.0000 Dilution Factor wit A, pe Width Area [min] [pA*s]	h ISTDs Height Area [pA] %	
Sorted By Multiplier Dilution Jse Multiplier & Signal 1: FID1 A Peak RetTime Typ # [min]	Area Percer : Signal : 1.0000 : 1.0000 2 Dilution Factor wit A, be Width Area [min] [pA*s]	t Report h ISTDs Height Area [DA] %	
Sorted By Multiplier Dilution Jse Multiplier & Signal 1: FID1 A Peak RetTime Typ # [min] 1 0.700 BV	Area Percer : Signal : 1.0000 : 1.0000 Dilution Factor wit A, be Width Area [min] [pA*s] -	t Report .h ISTDs Height Area [pA] % 2.56662e5 95.98581	
Sorted By Multiplier Dilution Jse Multiplier & Signal 1: FID1 A Peak RetTime Typ # [min] 1 0.700 BV 2 1.102 VB	Area Percer : Signal : 1.0000 : 1.0000 Dilution Factor wit A, be Width Area [min] [pA*s] 	Height Area [pA] % 	
Sorted By Multiplier Dilution Jse Multiplier & Signal 1: FID1 A Peak RetTime Typ # [min] 1 0.700 BV 2 1.102 VB 3 1.359 BB	Area Percer : Signal : 1.0000 : 1.0000 Dilution Factor wit A, be Width Area [min] [pA*s] - S 0.0160 2.81090e5 S 0.0142 1.12989e4 0.0168 2.57095	Height Area [pA] % 	
Sorted By Multiplier Dilution Jse Multiplier & Signal 1: FID1 A Peak RetTime Typ # [min] 1 0.700 BV 2 1.102 VB 3 1.359 BB 4 1.521 BB	Area Percer : Signal : 1.0000 : 1.0000 Dilution Factor wit (min] [pA*s] -	Height Area [pA] % 2.56662e5 95.98581 1.11729e4 3.85832 5 2.50871 0.00088 5 18.80991 0.00753	
Sorted By Multiplier Dilution Jse Multiplier & Signal 1: FID1 A Peak RetTime Typ # [min] 1 0.700 BV 2 1.102 VB 3 1.359 BB 4 1.521 BB 5 2.518 BB	Area Percer : Signal : 1.0000 : 1.0000 Dilution Factor wit 	Height Area [pA] % 2.56662e5 95.98581 1.11729e4 3.85832 5.2.50871 0.00088 5.18.80991 0.00753 131.21056 0.10548	
Sorted By Multiplier Dilution Jse Multiplier & Signal 1: FID1 A Peak RetTime Typ # [min] 1 0.700 BV 2 1.102 VB 3 1.359 BB 4 1.521 BB	Area Percer : Signal : 1.0000 : 1.0000 Dilution Factor wit 	Height Area [pA] % 2.56662e5 95.98581 1.11729e4 3.85832 5 2.50871 0.00088 5 18.80991 0.00753	
Sorted By Multiplier Dilution Jse Multiplier & Signal 1: FID1 A Peak RetTime Typ # [min] 1 0.700 BV 2 1.102 VB 3 1.359 BB 4 1.521 BB 5 2.518 BB	Area Percer : Signal : 1.0000 : 1.0000 Dilution Factor wit A, be Width Area [min] [pA*s] 	Height Area [pA] % 2.56662e5 95.98581 1.11729e4 3.85832 5.2.50871 0.00088 5.18.80991 0.00753 131.21056 0.10548	

Instrument 1 7/6/2018 9:41:56 PM Zach Taylor

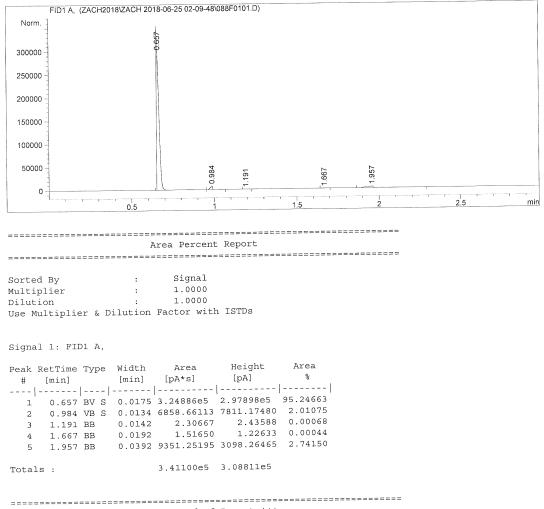
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-17 18-09-30\088F0111.D Sample Name: 4-cyano-4

e Name: 4-cyar	no-4 ===============				========	=			
	: Zach Taylo			Seq. Line :	1				
	t : Instrument			Location :	: Vial 88				
niection Date	: 17-May-18,	18:50:35		Inj :	: 11				
			I	inj Volume :	: 1 µl				
cq. Method	: C:\Chem32\	1\DATA\ZAC	H2018\ZACH	2018-05-17	18-09-30	\Z1.M			
ast changed	: 5/16/2018	7:43:44 PM	i by Zach Ta	aylor					
nalvsis Metho	d : C:\CHEM32\	1\METHODS\	Z4.M						
ast changed	: 7/6/2018 9	9:23:05 PM	by Zach Tay	ylor					
		after load	uing)						
ethod Info	: Alditol la	ιb.							
			=======================================			=			
									1.017
FID1 A, (Z Norm,]	ACH2018\ZACH 2018-	_	00FUTT.D)						
250000 -	1	L0/-0							
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150000 -									
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50000									
50000 -			8	0			515	4	
-			1.100	.520			2.51	2.724	
0			,						
·				1.5	2		2.5		,
	0.5			1.0					
				===========	=======	==			
		ea Percent	Report						
	:	Signal							
Sorted By	:	1.0000							
Multiplier	:	1.0000							
Dilution	r & Dilution F		TSTDS						
use Mulcipile.	c & Dilucion r	40001 (1201							
Signal 1: FID	1 A,								
Peak RetTime '	Type Width	Area	Height	Area					
# [min]	[min]	[pA*s]	[pA]	alo					
1 0 701	BV S 0.0150 2	2.47186e5	2.43937e5	96.34978					
2 1.100	VB S 0.0178 9	010.82227	8630.10059	3.51230					
3 1.520	BB 0.0186	17.36075	14.70469	0.00677					
4 2.515	BB 0.0359	238.23174	102.38573	0.09286					
5 2.724		98.23276	37.31549	0.03829					
			0 50800-5						
Totals :	2	2.56550e5	2.5272265						
	*==========;	*** End of	Report ***	==============	=======				

Instrument 1 7/6/2018 9:41:58 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\088F0101.D Sample Name: 4-bromo

Acq. Operator :	Zach Taylor	Seq. Line : 1
Acq. Instrument :	Instrument 1	Location : Vial 88
	25-Jun-18, 02:10:51	Inj : 1
5		Inj Volume : 1 µl
Acq. Method :	C:\Chem32\1\DATA\ZAC	H2018\ZACH 2018-06-25 02-09-48\Z4.M
	6/3/2018 6:09:38 PM	
Analysis Method :	C:\CHEM32\1\METHODS\	Z4.M
Last changed :	7/6/2018 9:23:05 PM	by Zach Taylor
5	(modified after load	ling)
Method Info :	Alditol lab.	

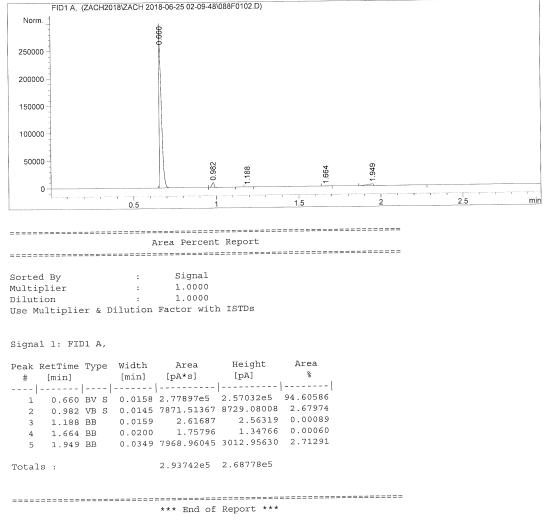


*** End of Report ***

Instrument 1 7/6/2018 9:42:40 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\088F0102.D Sample Name: 4-bromo

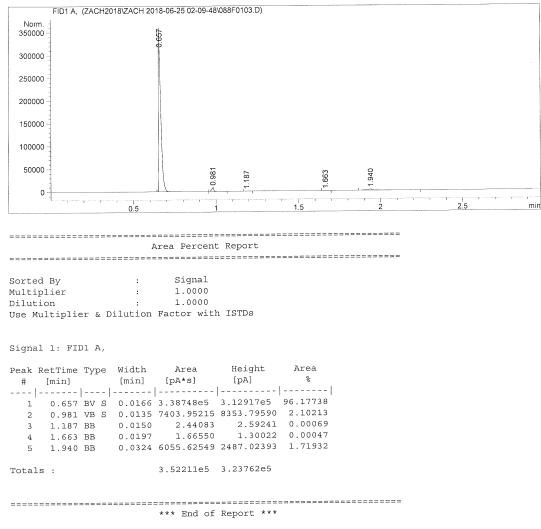
	= =	
Acq. Operator	:	
Acq. Instrument	:	
Injection Date	:	25-Jun-18, 02:14:52 Inj: 2
		Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\Z4.M
Last changed		6/3/2018 6:09:38 PM by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor
		(modified after loading)
Method Info	:	Alditol lab.



Instrument 1 7/6/2018 9:42:42 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\088F0103.D Sample Name: 4-bromo

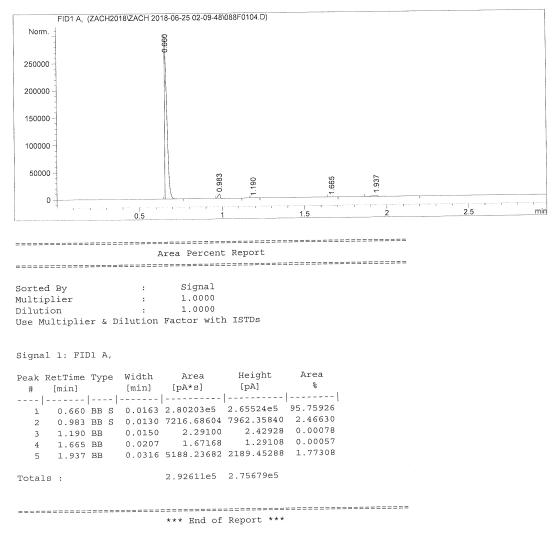
Acq. Operator :	Zach Taylor	Seq. Line : 1
Acq. Instrument :	Instrument 1	Location : Vial 88
Injection Date :	25-Jun-18, 02:18:53	Inj: 3
		Inj Volume : 1 µl
Acq. Method :	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-06-25 02-09-48\Z4.M
Last changed :	6/3/2018 6:09:38 PM b	y Zach Taylor
Analysis Method :	C:\CHEM32\1\METHODS\Z	.4.M
Last changed :	7/6/2018 9:23:05 PM b	y Zach Taylor
	(modified after loadi	.ng)
Method Info :	Alditol lab.	



Instrument 1 7/6/2018 9:42:44 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\088F0104.D Sample Name: 4-bromo

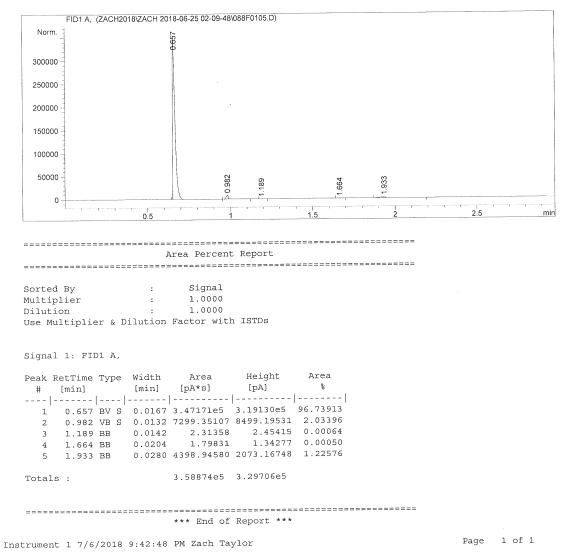
	=	
Acq. Operator	:	Zach Taylor Seq. Line : 1
Acq. Instrument	:	Instrument 1 Location : Vial 88
		25-Jun-18, 02:22:55 Inj: 4
3		Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\Z4.M
Last changed	:	6/3/2018 6:09:38 PM by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor
		(modified after loading)
Method Info	:	Alditol lab.



Instrument 1 7/6/2018 9:42:46 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\088F0105.D Sample Name: 4-bromo

	= =	
Acq. Operator	:	Zach Taylor Seq. Line : 1
Acq. Instrument	:	Instrument 1 Location : Vial 88
Injection Date	:	25-Jun-18, 02:26:57 Inj: 5
2		Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\Z4.M
		6/3/2018 6:09:38 PM by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M
Last changed		7/6/2018 9:23:05 PM by Zach Taylor
		(modified after loading)
Method Info	:	Alditol lab.



Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\088F0106.D Sample Name: 4-bromo

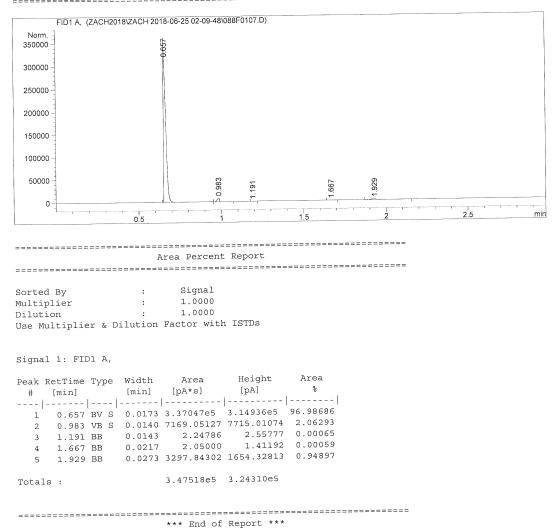
ple Name: 4-b:							
			==================	Seq. Line			
	: : Zach Tay ent : Instrume			Location			
	ie : 25-Jun-1		`		: 6		
injection ba	.e : 25-0000-	10, 02:51:00	5	Inj Volume			
Acq. Method	· C·\Chemi	20\1\DATA\7	CH2018\ZACH		02-09-48\Z4.M		
Last changed			4 by Zach Ta		02 00 10(21.15		
	nod : C:\CHEM3			(y 101			
Last changed	: 7/6/2018			wlor			
Last Changed		ed after loa		ty 101			
Method Info			iaing,				
Meenod Into	. Ararcor	iub.					
FID1 A,	(ZACH2018\ZACH 20	18-06-25 02-09-48	3\088F0106.D)				
Norm.							
		0.65 8					
		ů.					
300000 ~							
-							
250000 -							
200000 -							
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150000							
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1		0.983	189	665	931		
0			-				
v -[······	· · ·				·
	0.5		1	1.5	2	2.5	min
		=======================================					
		Area Percent					
Sorted By	:	Signal					
Multiplier		1.0000					
Dilution		1.0000					
	er & Dilution		h ISTDs				
obe narerpar.							
Signal 1: FII	01 A.						
orginar 1. 11	/ / / /						
Peak RetTime	Type Width	Area	Height	Area			
# [min]	[min]	[pA*s]	[pA]	8			
1 0 659	BV S 0.0158	3 1880865	3.15937e5	96.56348			
	VB S 0.0127						
3 1.189				0.00068			
				0.00055			
5 1.931	вв 0.0279	3729.02134	1856.44543	1.13024			
Totalc		3.30153e5	3 2621105				
Totals :		3.3015365	3.2021105				

*** End of Report ***

Instrument 1 7/6/2018 9:42:49 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\088F0107.D Sample Name: 4-bromo

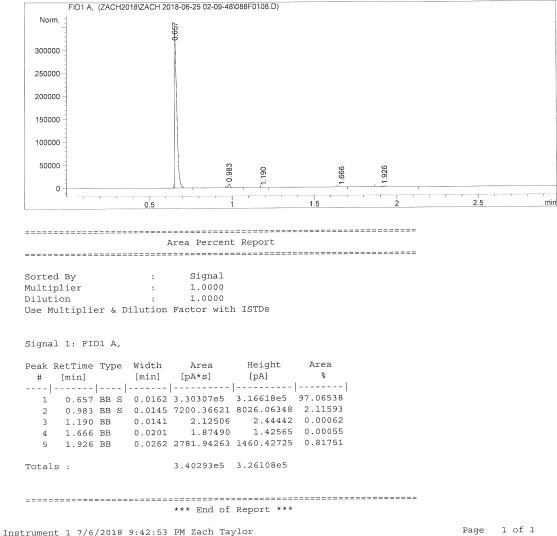
Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument		Location : Vial 88
	: 25-Jun-18, 02:35:01	Inj : 7
211,0002010 2000		Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-06-25 02-09-48\Z4.M
Last changed	: 6/3/2018 6:09:38 PM k	by Zach Taylor
Analysis Method	: C:\CHEM32\1\METHODS\2	24.M
Last changed	: 7/6/2018 9:23:05 PM k (modified after load	by Zach Taylor
Method Info	: Alditol lab.	



Instrument 1 7/6/2018 9:42:51 PM Zach Taylor

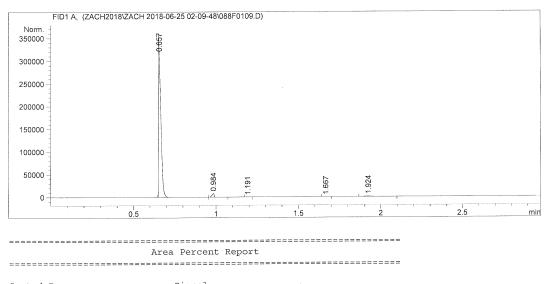
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\088F0108.D Sample Name: 4-bromo

Acq. Operator	:	Zach Taylor Seq. Line : 1				
Acq. Instrument	:	Instrument 1 Location : Vial 88				
Injection Date	:	25-Jun-18, 02:39:04 Inj: 8				
		Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\Z4.M				
Last changed	:	6/3/2018 6:09:38 PM by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M				
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor				
		(modified after loading)				
Method Info	:	Alditol lab.				



Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\088F0109.D Sample Name: 4-bromo

Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Inj: 9 Injection Date : 25-Jun-18, 02:43:06 Inj Volume : 1 µl Acq. Method : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\Z4.M : 6/3/2018 6:09:38 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak 1 #	RetTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.657	вv	S	0.0165	3.39741e5	3.16436e5	97.21770
2	0.984	VB	S	0.0132	7272.08252	8502.43555	2.08092
3	1.191	BB		0.0138	2.32451	2.55641	0.00067
4	1.667	BB		0.0192	1.91066	1.55120	0.00055
5	1.924	BB		0.0268	2446.83960	1294.91040	0.70017

Totals :

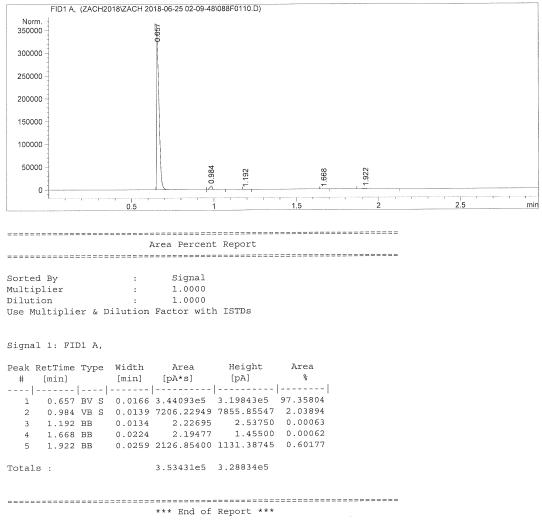
3.49465e5 3.26238e5

*** End of Report ***

Instrument 1 7/6/2018 9:42:55 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\088F0110.D Sample Name: 4-bromo

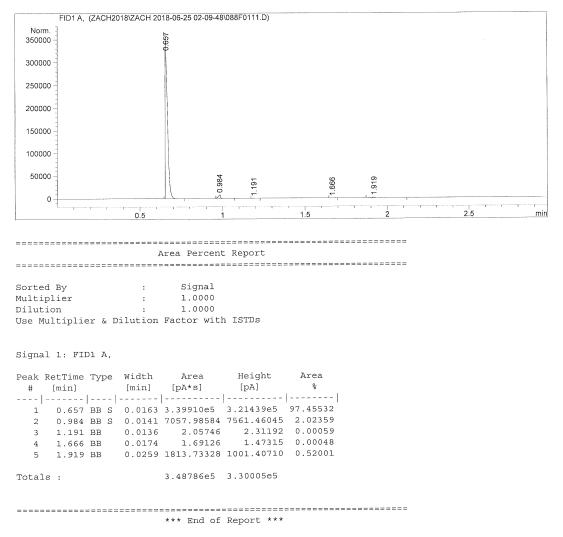
Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 88				
Injection Date	:	25-Jun-18, 02:47:09	Inj : 10				
			Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZAC	H2018\ZACH 2018-06-25 02-09-48\Z4.M				
Last changed	:	6/3/2018 6:09:38 PM	by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\	Z4.M				
Last changed	:	7/6/2018 9:23:05 PM	by Zach Taylor				
		(modified after load	ing)				
Method Info	:	Alditol lab.					



Instrument 1 7/6/2018 9:42:56 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 02-09-48\088F0111.D Sample Name: 4-bromo

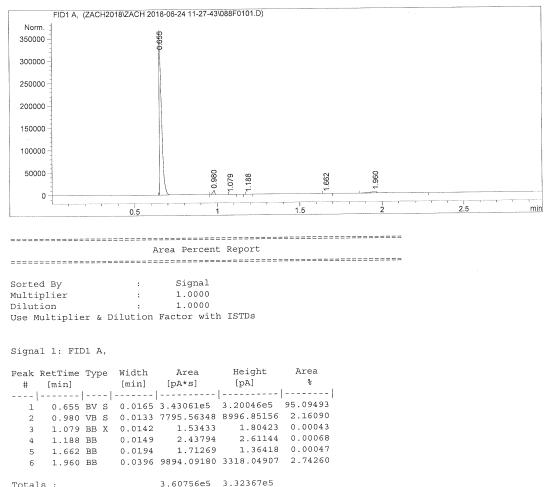
=================	= ==		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	25-Jun-18, 02:51:13	Inj : 11
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZAC	H2018\ZACH 2018-06-25 02-09-48\Z4.M
Last changed	:	6/3/2018 6:09:38 PM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\	Z4.M
Last changed	:	7/6/2018 9:23:05 PM	by Zach Taylor
		(modified after load	ing)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 9:42:58 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\088F0101.D Sample Name: 4-bromo

Acq. Operator	:	Zach Taylor Seq. Line : 1					
Acq. Instrument	:	Instrument 1 Location : Vial 88					
Injection Date	:	24-Jun-18, 11:28:46 Inj : 1					
5		Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\Z4.M					
		6/3/2018 6:09:38 PM by Zach Taylor					
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M					
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor					
-		(modified after loading)					
Method Info	:	Alditol lab.					

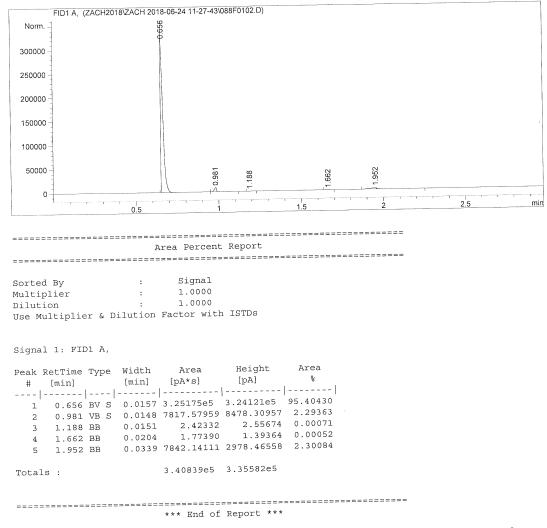


Totals :

Instrument 1 7/6/2018 9:43:23 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\088F0102.D Sample Name: 4-bromo

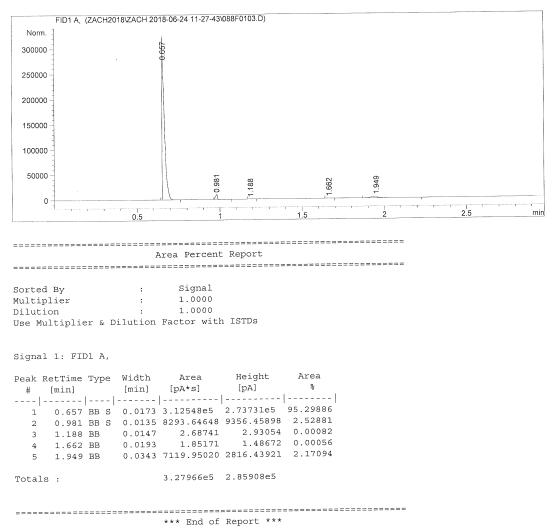
apre Name: 4-promo								
Acq. Operator	:	Zach Taylor Seq. Line : 1						
Acq. Instrument		Instrument 1 Location : Vial 88						
Injection Date		24-Jun-18, 11:32:48 Inj : 2						
injection bace		Inj Volume : 1 µl						
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\Z4.M						
Last changed	:	6/3/2018 6:09:38 PM by Zach Taylor						
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M						
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor						
		(modified after loading)						
Method Info	:	Alditol lab.						



Instrument 1 7/6/2018 9:43:25 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\088F0103.D Sample Name: 4-bromo

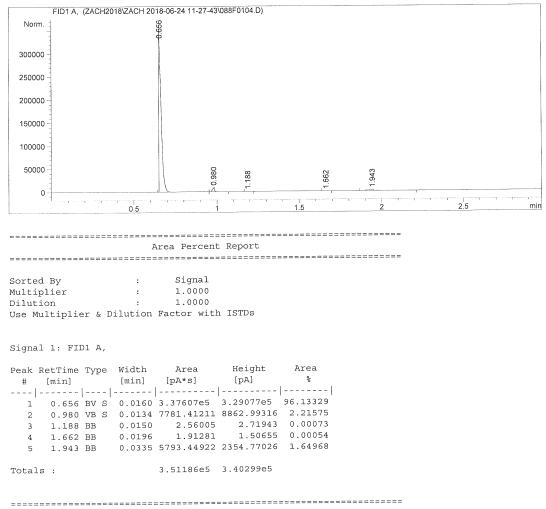
Acq. Operator	:	Zach Taylor	Seq. Line : 1					
Acq. Instrument	:	Instrument 1	Location : Vial 88					
Injection Date	:	24-Jun-18, 11:36:49	Inj : 3					
			Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-06-24 11-27-43\Z4.M					
Last changed	:	6/3/2018 6:09:38 PM b	y Zach Taylor					
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M					
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor					
		(modified after loadi	ng)					
Method Info	:	Alditol lab.						



Instrument 1 7/6/2018 9:43:27 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\088F0104.D Sample Name: 4-bromo

	=			
Acq. Operator	:	Zach Taylor	Seq. Line :	1
Acq. Instrument	:	Instrument 1	Location :	Vial 88
Injection Date	:	24-Jun-18, 11:40:51	Inj :	4
			Inj Volume :	l µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZAC	H 2018-06-24 1	1-27-43\Z4.M
Last changed	:	6/3/2018 6:09:38 PM by Zach T	aylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M		
Last changed	:	7/6/2018 9:23:05 PM by Zach T	aylor	
		(modified after loading)		
Method Info	:	Alditol lab.		

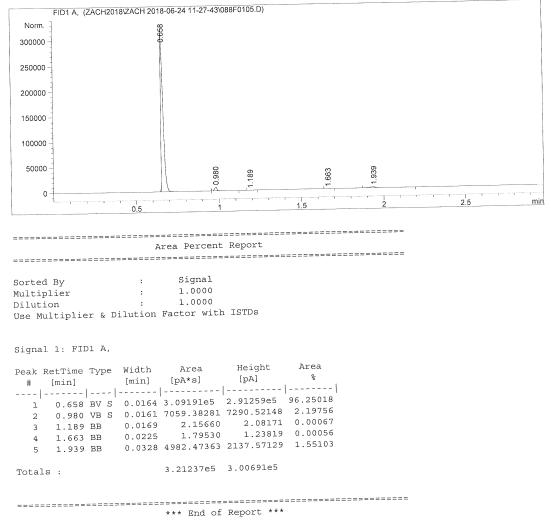


*** End of Report ***

Instrument 1 7/6/2018 9:43:29 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\088F0105.D Sample Name: 4-bromo

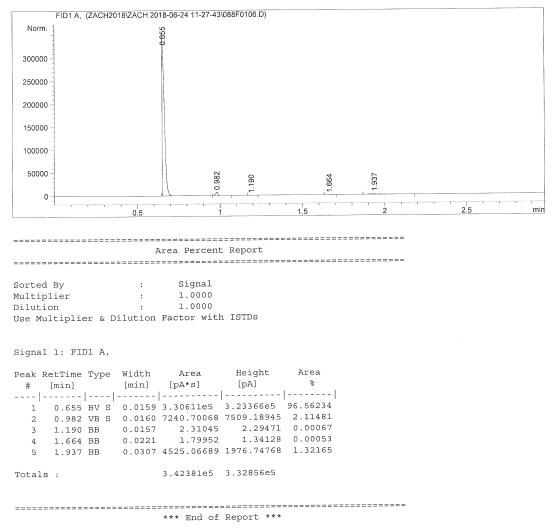
ple Name: 4-bromo			
Acq. Operator Acq. Instrument		Seq. Line : 1 Location : Vial 88 Inj : 5	
Acg. Method	: C:\Chem32\1\DATA\ZACH201	Inj Volume : 1 µl 3\ZACH 2018-06-24 11-27-43\Z4.M	
Analysis Method	: 6/3/2018 6:09:38 PM by Z : C:\CHEM32\1\METHODS\Z4.M		
Last changed Method Info	: 7/6/2018 9:23:05 PM by Z (modified after loading) : Alditol lab.	2011 10y 202	
method 1110	. Alditor 100.		



Instrument 1 7/6/2018 9:43:31 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\088F0106.D Sample Name: 4-bromo

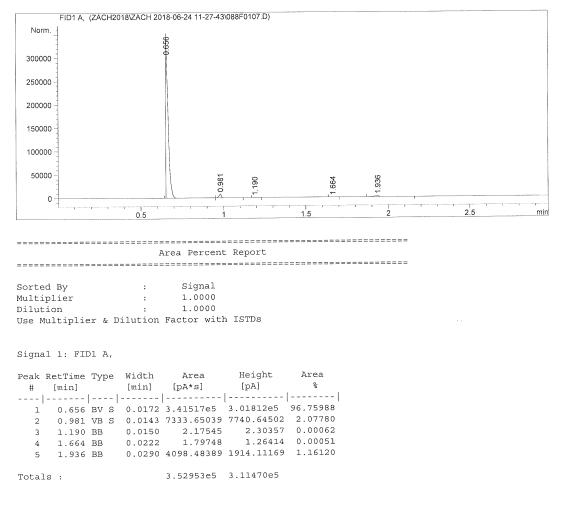
Acq. Operator	:	: Zach Taylor Seq. Line :	1
Acq. Instrument	:	: Instrument 1 Location : V	'ial 88
Injection Date	:	: 24-Jun-18, 11:48:53 Inj :	6
		Inj Volume : 1	
Acq. Method	:	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-24 11	-27-43\Z4.M
Last changed	:	: 6/3/2018 6:09:38 PM by Zach Taylor	
Analysis Method	:	: C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	: 7/6/2018 9:23:05 PM by Zach Taylor	
		(modified after loading)	
Method Info	:	: Alditol lab.	



Instrument 1 7/6/2018 9:43:33 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\088F0107.D Sample Name: 4-bromo

1 Acq. Operator : Zach Taylor Seq. Line : Acq. Instrument : Instrument 1 Location : Vial 88 Injection Date : 24-Jun-18, 11:52:53 Inj: 7 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\Z4.M Acq. Method : 6/3/2018 6:09:38 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.

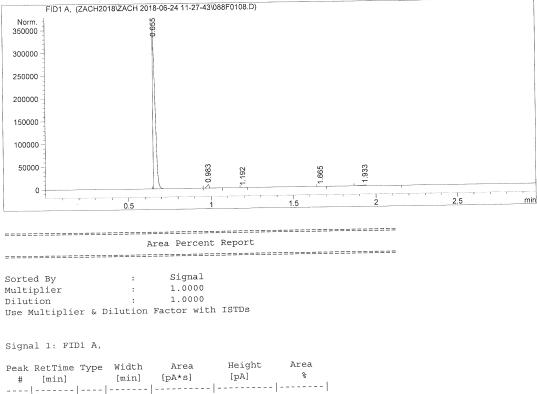


*** End of Report ***

Instrument 1 7/6/2018 9:43:35 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\088F0108.D Sample Name: 4-bromo

_____ 1 Seq. Line : Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 8 Injection Date : 24-Jun-18, 11:56:56 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\Z4.M Acq. Method : 6/3/2018 6:09:38 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info



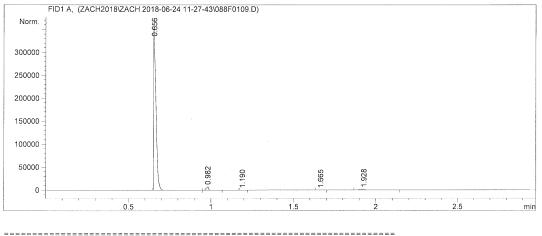
17 1	[[eT		
1	0.655	BV S	0.0168	3.40732e5	3.30259e5	97.03330
	0.983		0.0138	6951.68994	7644.65967	1.97970
	1.192		0.0134	2.05070	2.34496	0.00058
-	1.665		0.0199	1.98002	1.53056	0.00056
	1.933		0.0280	3461.82593	1680.42432	0.98586
Totals	:			3.51149e5	3.39588e5	

*** End of Report ***

Instrument 1 7/6/2018 9:43:37 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\088F0109.D Sample Name: 4-bromo

Acq. Operator :	Zach Taylor	Seq. Line : 1	
Acq. Instrument :	Instrument 1	Location : Vial 88	
Injection Date :	24-Jun-18, 12:00:57	Inj : 9	
		Inj Volume : 1 µl	
Acq. Method :	C:\Chem32\1\DATA\ZACH2018	B\ZACH 2018-06-24 11-27-43\Z4.M	
Last changed :	6/3/2018 6:09:38 PM by Za	ach Taylor	
Analysis Method :	C:\CHEM32\1\METHODS\Z4.M		
Last changed :	7/6/2018 9:23:05 PM by Za	ach Taylor	
	(modified after loading)		
Method Info :	Alditol lab.		



Area Percent Report

Sorted By	:	Signal	
Multiplier	:	1.0000	
Dilution	:	1.0000	
Use Multiplier	& Dilution	Factor with	ISTDs

Signal 1: FID1 A,

Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.656	BV S	0.0154	3.33132e5	3.40521e5	97.10690
2	0.982	VB S	0.0133	6854.60156	7335.25781	1.99810
3	1.190	BB	0.0151	1.94397	2.04677	0.00057
4	1.665	BB	0.0219	1.85813	1.33036	0.00054
5	1.928	BB	0.0273	3066.56592	1487.36328	0.89390
Totals	:			3.43057e5	3.49347e5	

*** End of Report ***

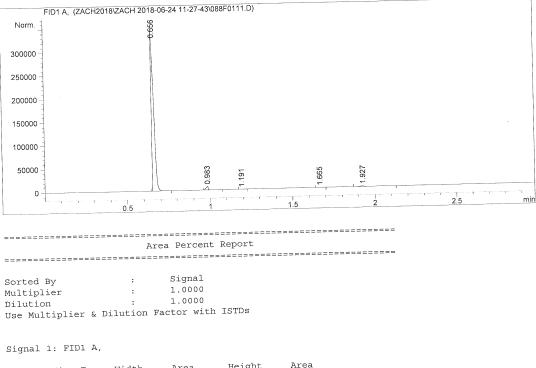
Instrument 1 7/6/2018 9:43:38 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\088F0110.D Sample Name: 4-bromo Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Injection Date : 24-Jun-18, 12:05:00 Inj : 10 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\Z4.M Acq. Method Last changed : 6/3/2018 6:09:38 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-06-24 11-27-43\088F0110.D) Norm 0.655 350000 300000 250000 200000 150000 100000 50000 0.981 189 926 0 0.5 2.5 min _____ Area Percent Report _____ Sorted By : Signal Multiplier 1.0000 : Dilution 1.0000 : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Height Area Area [min] [pA*s] [pA] 00 # [min] 0.655 BV S 0.0160 3.33903e5 3.23342e5 97.20438 1 0.981 VB S 0.0176 6849.10645 6632.00781 1.99388 2 0.01521.949302.021940.000570.02291.790111.262930.00052 1.189 BB 0.0152 1.664 BB 0.0229 3 4 1.926 BB 0.0281 2750.28857 1376.95715 0.80065 5 3.43506e5 3.31354e5 Totals : *** End of Report ***

Instrument 1 7/6/2018 9:43:40 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\088F0111.D Sample Name: 4-bromo

uple Name: 4-bromo	
Acg. Instrument	: Zach Taylor Seq. Line : 1 : Instrument 1 Location : Vial 88 : 24-Jun-18, 12:09:01 Inj : 11 Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-24 11-27-43\Z4.M
Last changed	: 6/3/2018 6:09:38 PM by Zach Taylor
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M
	: 7/6/2018 9:23:05 PM by Zach Taylor
Last changed	(modified after loading)
Method Info	: Alditol lab.

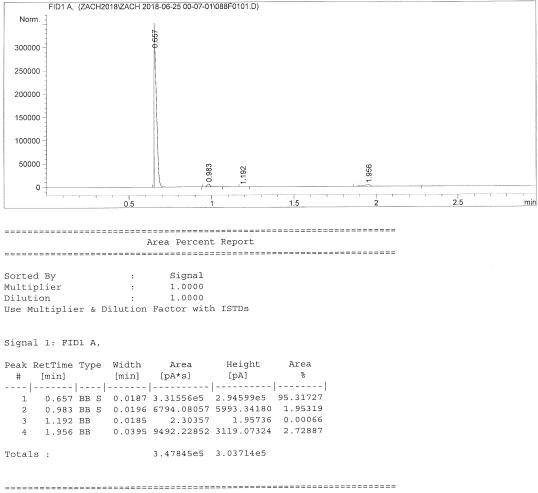


*** End of Report ***

Instrument 1 7/6/2018 9:43:42 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\088F0101.D Sample Name: 4-bromo

Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	25-Jun-18, 00:08:04	Inj : 1			
			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH	H2018\ZACH 2018-06-25 00-07-01\Z4.M			
Last changed	:	6/3/2018 6:09:38 PM k	by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\2	34.M			
Last changed	:	7/6/2018 9:23:05 PM k	by Zach Taylor			
		(modified after load	ing)			
Method Info	:	Alditol lab.				

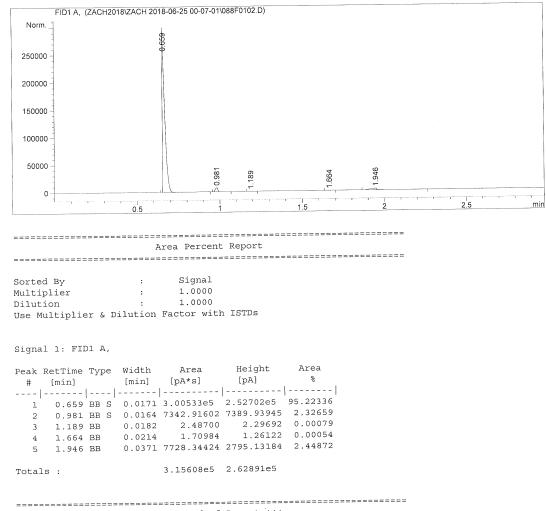


*** End of Report ***

Instrument 1 7/6/2018 9:45:08 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\088F0102.D Sample Name: 4-bromo

ipre Name: 4-brome	,				
Acq. Operator	:	Zach Taylor Seq. Line : 1			
Acq. Instrument	;				
Injection Date	:	25-Jun-18, 00:12:07 Inj: 2			
,		Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\Z4.M			
Last changed	:	6/3/2018 6:09:38 PM by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M			
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor			
-		(modified after loading)			
Method Info	:	Alditol lab.			



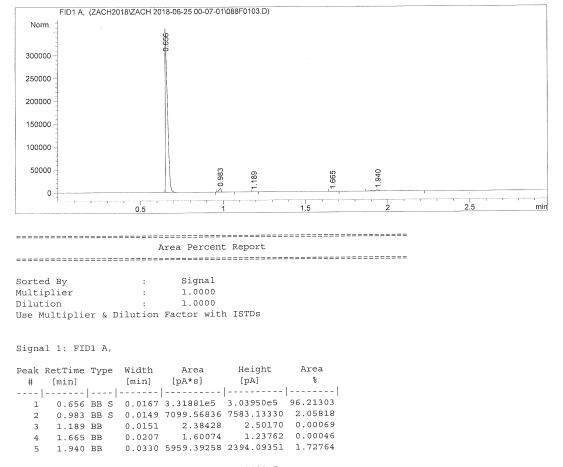
*** End of Report ***

Instrument 1 7/6/2018 9:45:10 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\088F0103.D Sample Name: 4-bromo
```

Acq. Operator	Zach Taylor Seq. Line : 1				
Acq. Instrument	Instrument 1 Location : Vial 88				
Injection Date	25-Jun-18, 00:16:10 Inj : 3				
2	Inj Volume : 1 µl				
Acq. Method	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\Z4	М.			
Last changed	6/3/2018 6:09:38 PM by Zach Taylor				
Analysis Method	C:\CHEM32\1\METHODS\Z4.M				
Last changed	7/6/2018 9:23:05 PM by Zach Taylor				
-	(modified after loading)				
Method Info	Alditol lab.				





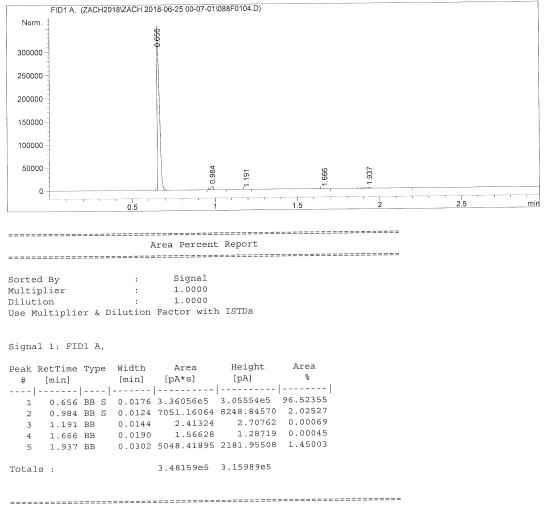
Totals : 3.44944e5 3.13931e5

*** End of Report ***

Instrument 1 7/6/2018 9:45:11 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\088F0104.D Sample Name: 4-bromo

=======================================		
Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument	: Instrument 1	Location : Vial 88
Injection Date	: 25-Jun-18, 00:20:12	Inj: 4
5		Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-06-25 00-07-01\Z4.M
Last changed	: 6/3/2018 6:09:38 PM b	y Zach Taylor
Analysis Method	: C:\CHEM32\1\METHODS\Z	4.M
	: 7/6/2018 9:23:05 PM b	
5	(modified after loadi	ng)
Method Info	: Alditol lab.	

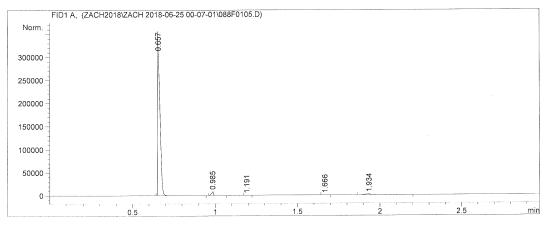


*** End of Report ***

Instrument 1 7/6/2018 9:45:13 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\088F0105.D Sample Name: 4-bromo

=======================					
Acq. Operator	:	Zach Taylor	Seq. Line	:	1
Acq. Instrument	:	Instrument 1	Location	:	Vial 88
Injection Date	:	25-Jun-18, 00:24:15	Inj	:	5
			Inj Volume	:	l µl
Acq. Method	:	C:\Chem32\1\DATA\ZAC	H2018\ZACH 2018-06-2	5	00-07-01\Z4.M
Last changed	:	6/3/2018 6:09:38 PM	oy Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\	Z4.M		
Last changed	:	7/6/2018 9:23:05 PM	oy Zach Taylor		
		(modified after load	ing)		
Method Info	:	Alditol lab.			



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

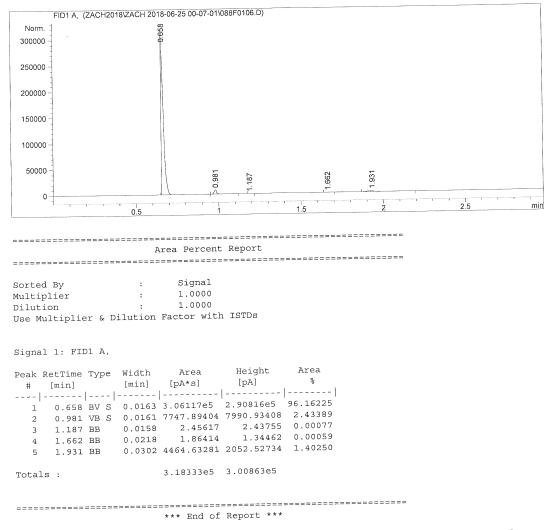
Peak F #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.657	BB S	0.0175	3.37239e5	3.09480e5	96.70726
2	0.985	BB S	0.0124	7034.42480	8223.92090	2.01720
3	1.191	BB	0.0133	2.29558	2.66387	0.00066
4	1.666	BB	0.0201	1.79374	1.37117	0.00051
5	1.934	BB	0.0298	4443.96436	2006.39563	1.27436
Totals	3 :			3.48721e5	3.19714e5	

*** End of Report ***

Instrument 1 7/6/2018 9:45:15 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\088F0106.D Sample Name: 4-bromo

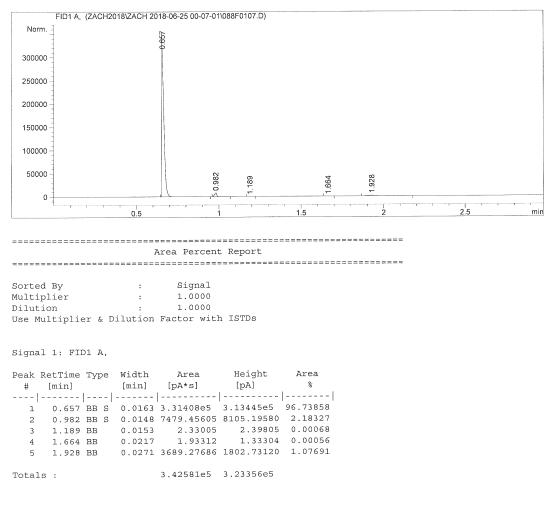
Acq. Operator	:	Zach Taylor Seq. Line : 1				
Acq. Instrument		Instrument 1 Location : Vial 88				
		25-Jun-18, 00:28:16 Inj : 6				
5		Inj Volume : 1 µl				
Acg. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\Z4.M				
Last changed	:	6/3/2018 6:09:38 PM by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M				
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor				
5		(modified after loading)				
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 9:45:16 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\088F0107.D Sample Name: 4-bromo

Acq. Operator :	Zach Taylor	Seq. Line : 1					
Acq. Instrument :	Instrument 1	Location : Vial 88					
Injection Date :	25-Jun-18, 00:32:19	Inj: 7					
		Inj Volume : 1 µl					
Acq. Method :	C:\Chem32\1\DATA\ZAG	CH2018\ZACH 2018-06-25 00-07-01\Z4.M					
Last changed :	6/3/2018 6:09:38 PM	by Zach Taylor					
Analysis Method :	C:\CHEM32\1\METHODS	\Z4.M					
Last changed :	7/6/2018 9:23:05 PM	by Zach Taylor					
	(modified after load	ling)					
Method Info	Alditol lab.						

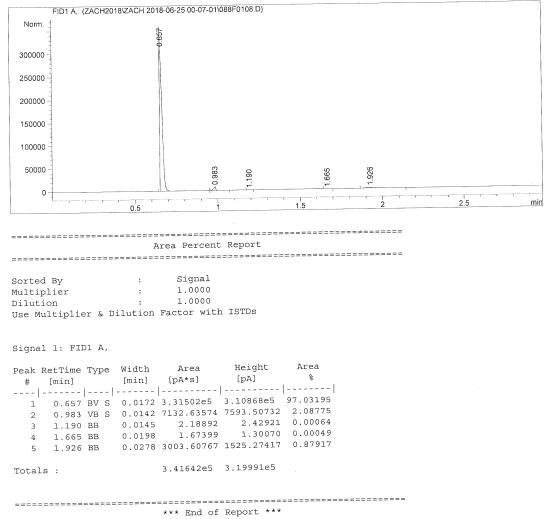


*** End of Report ***

Instrument 1 7/6/2018 9:45:18 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\088F0108.D Sample Name: 4-bromo

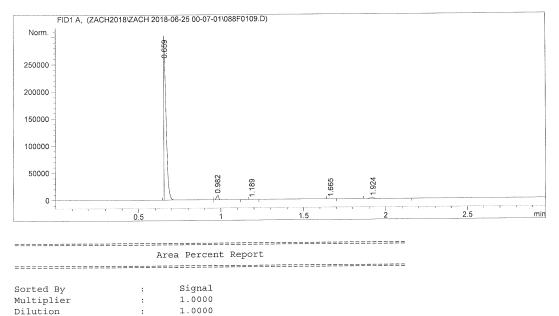
pre Name. 4 bromo						
Acq. Operator	ach Taylor Seq. Line : 1					
Acq. Instrument	nstrument 1 Location : Vial 88					
Injection Date	5-Jun-18, 00:36:21 Inj: 8					
injection baco	Inj Volume : 1 µl					
Acq. Method	:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01	∖Z4.M				
Last changed	/3/2018 6:09:38 PM by Zach Taylor					
Analysis Method	:\CHEM32\l\METHODS\Z4.M					
Last changed	/6/2018 9:23:05 PM by Zach Taylor modified after loading)					
Method Info	lditol lab.					



Instrument 1 7/6/2018 9:45:20 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\088F0109.D Sample Name: 4-bromo

ipre Mame: 4-promo	, ,				
Acq. Operator	:	Zach Taylor Seq. Line : 1			
Acq. Instrument	:	Instrument 1 Location : Vial 88			
Injection Date	:	25-Jun-18, 00:40:25 Inj: 9			
2		Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\Z4.M			
Last changed	:	6/3/2018 6:09:38 PM by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M			
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor			
		(modified after loading)			
Method Info	:	Alditol lab.			



Signal 1: FID1 A,

Peak Re # [tTime min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.659	BV S	0.0174	2.77298e5	2.57173e5	96.37993
2	0.982	VBS	0.0156	7335.52441	7930.45801	2.54959
3	1.189	BB	0.0151	2.25134	2.35859	0.00078
4	1.665	BB	0.0223	1.91613	1.34254	0.00067
5	1.924	BB	0.0287	3075.75415	1498.72998	1.06903
Totals	:			2.87714e5	2.66606e5	

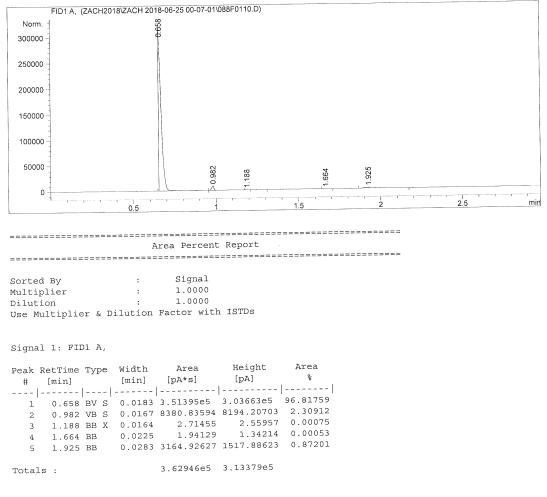
Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

*** End of Report ***

Instrument 1 7/6/2018 9:45:22 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\088F0110.D Sample Name: 4-bromo

Acq. Operator :	Zach Taylor	Seq. Line : 1
Acq. Instrument :	Instrument 1	Location : Vial 88
	25-Jun-18, 00:44:26	Inj : 10
injection back		Inj Volume : 1 µl
Last changed : Analysis Method :	 C:\Chem32\1\DATA\ZACH2 6/3/2018 6:09:38 PM by C:\CHEM32\1\METHODS\Z4 7/6/2018 9:23:05 PM by (modified after loading) 	I.M 7 Zach Taylor
Method Info :	Alditol lab.	

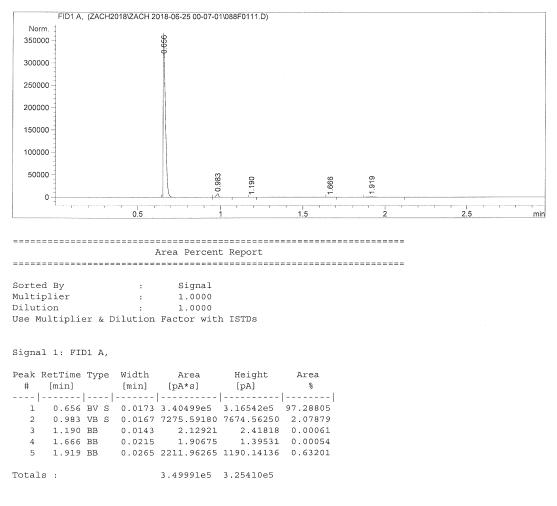


*** End of Report ***

Instrument 1 7/6/2018 9:45:23 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\088F0111.D Sample Name: 4-bromo

Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 25-Jun-18, 00:48:29 Inj : 11 Inj Volume : 1 µl Acq. Method : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-25 00-07-01\Z4.M Last changed : 6/3/2018 6:09:38 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab.

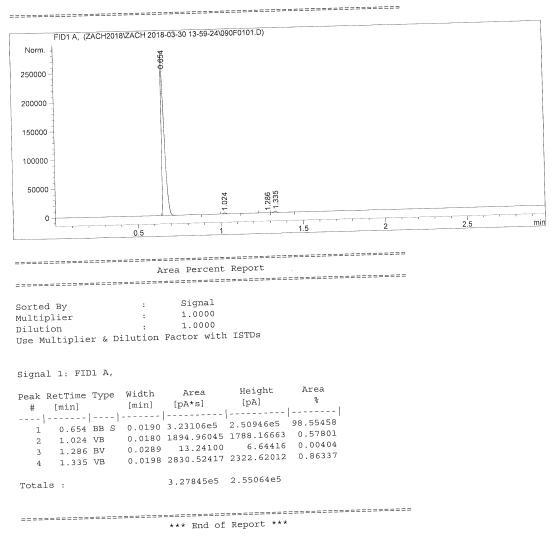


*** End of Report ***

Instrument 1 7/6/2018 9:45:25 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 13-59-24\090F0101.D Sample Name: 4-Methyl Run #1

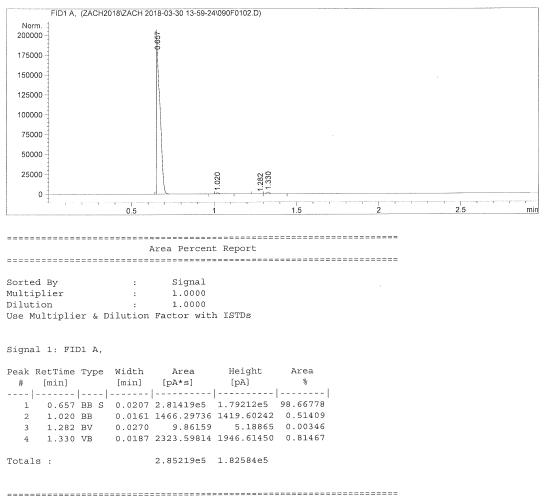
nple Name: 4-Methy	/l Run #L	
Acq. Operator Acq. Instrument Injection Date	: Instrument 1 : 30-Mar-18, 14:00:27	Seq. Line : 1 Location : Vial 90 Inj : 1 Inj Volume : 1 µl
Acq. Method Last changed Analysis Method Last changed Method Info	: C:\Chem32\1\DATA\ZACH2016 : 3/28/2018 2:43:48 PM by 2 : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Za (modified after loading) : Alditol lab.	



Instrument 1 7/6/2018 9:47:36 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 13-59-24\090F0102.D Sample Name: 4-Methyl Run #1

Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 90	
Injection Date	:	30-Mar-18, 14:04:31	Inj: 2	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\2	ACH 2018-03-30 13-59-24\ZACH2018.M	
Last changed	:	3/28/2018 2:43:48 PM by Zac	h Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M		
Last changed	:	7/6/2018 9:23:05 PM by Zach	a Taylor	
		(modified after loading)		
Method Info	:	Alditol lab.		

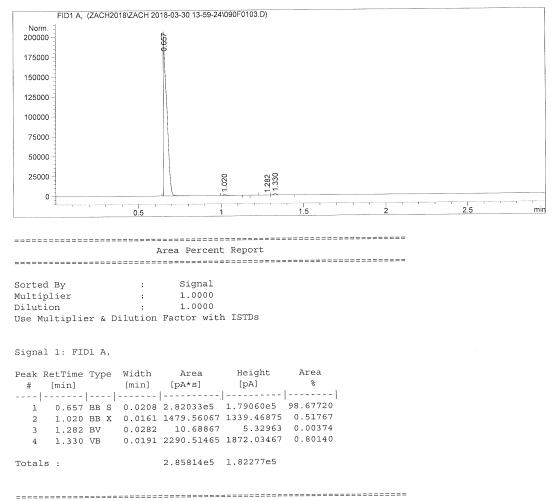


*** End of Report ***

Instrument 1 7/6/2018 9:47:38 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 13-59-24\090F0103.D Sample Name: 4-Methyl Run #1

Acq. Operator : Zach Taylor	Seq. Line : 1
Acq. Instrument : Instrument 1	Location : Vial 90
Injection Date : 30-Mar-18, 14:08:33	Inj : 3
17	Inj Volume : 1 µl
Acq. Method : C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-03-30 13-59-24\ZACH2018.M
Last changed : 3/28/2018 2:43:48 PM by	y Zach Taylor
Analysis Method : C:\CHEM32\1\METHODS\Z4	. M
Last changed : 7/6/2018 9:23:05 PM by	Zach Taylor
(modified after loading	g)
Method Info : Alditol lab.	

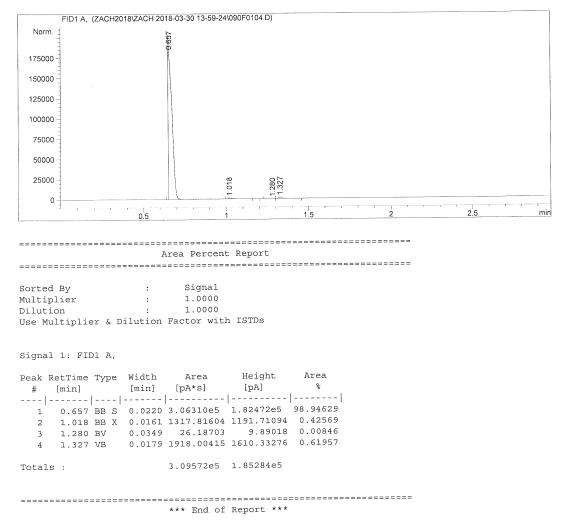


*** End of Report ***

Instrument 1 7/6/2018 9:47:40 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 13-59-24\090F0104.D Sample Name: 4-Methyl Run #1

	=======================================	=======================================
Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument	: Instrument 1	Location : Vial 90
Injection Date	: 30-Mar-18, 14:12:35	Inj : 4
-		Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\	ZACH 2018-03-30 13-59-24\ZACH2018.M
	: 3/28/2018 2:43:48 PM by Za	ch Taylor
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	
Last changed	: 7/6/2018 9:23:05 PM by Zac	h Taylor
	(modified after loading)	
Method Info	: Alditol lab.	



Instrument 1 7/6/2018 9:47:42 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 13-59-24\090F0105.D
Sample Name: 4-Methyl Run #1
    Seq. Line :
                                                                  1
    Acq. Operator : Zach Taylor
                                                     Location : Vial 90
    Acq. Instrument : Instrument 1
                                                           Inj: 5
    Injection Date : 30-Mar-18, 14:16:38
                                                   Inj Volume : 1 µl
                   : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-30 13-59-24\ZACH2018.M
    Acq. Method
                   : 3/28/2018 2:43:48 PM by Zach Taylor
    Last changed
    Analysis Method : C:\CHEM32\1\METHODS\Z4.M
                 : 7/6/2018 9:23:05 PM by Zach Taylor
    Last changed
                      (modified after loading)
    Method Info
                    : Alditol lab.
    FID1 A, (ZACH2018\ZACH 2018-03-30 13-59-24\090F0105.D)
      Norm.
                              0.656
      200000
      175000
      150000 -
      125000
      100000 -
      75000
      50000
      25000
                                         018
                                                284
         0
              · · · · · · ·
                                                                                    2.5
                                                                                                 min
                         0.5
                                                       1.5
    Area Percent Report
    Signal
    Sorted By
                          :
                                 1.0000
    Multiplier
                          :
                                 1.0000
    Dilution
                          :
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
    Peak RetTime Type Width
                                           Height
                                                       Area
                                 Area
                                                       8
                                           [pA]
                               [pA*s]
      # [min]
                       [min]
                                                   - | - - - - - - -
     1 0.656 BB S 0.0214 3.39354e5 2.07884e5 99.00019

        1.018
        BB
        0.0164
        1395.3343
        2.0703425
        9.004733

        1.254
        BV
        0.0250
        13.01896
        7.51408
        0.00380

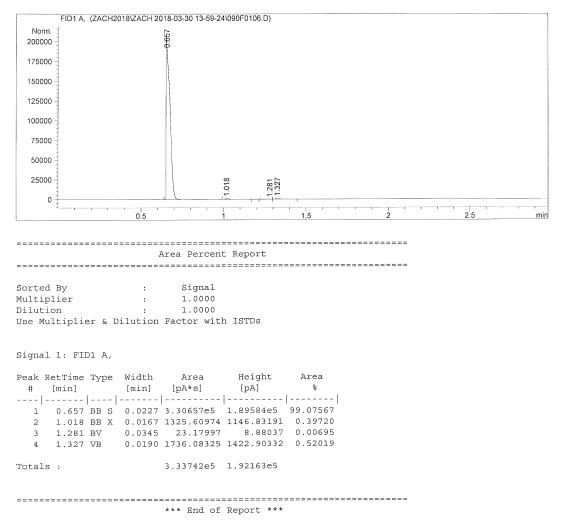
        1.281
        VV
        0.0250
        19.41205
        10.80859
        0.00566

        1.328
        VB
        0.0186
        1998.50415
        1591.64880
        0.58303

       2
       3
       4
       5
                              3.42781e5 2.10730e5
    Totals :
    ______
                              *** End of Report ***
                                                                                  Page 1 of 1
Instrument 1 7/6/2018 9:47:44 PM Zach Taylor
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 13-59-24\090F0106.D Sample Name: 4-Methyl Run #1

Acq. Operator	: Zach Taylor	Seq. Line : 1	
Acq. Instrument	: Instrument 1	Location : Vial 90	
Injection Date	: 30-Mar-18, 14:20:41	Inj : 6	
		Inj Volume : 1 µl	
Acq. Method	: C:\Chem32\1\DATA\ZACH2018	\ZACH 2018-03-30 13-59-24\ZACH2018.M	
Last changed	: 3/28/2018 2:43:48 PM by Z	ach Taylor	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M		
Last changed	: 7/6/2018 9:23:05 PM by Za	ch Taylor	
	(modified after loading)		
Method Info	: Alditol lab.		

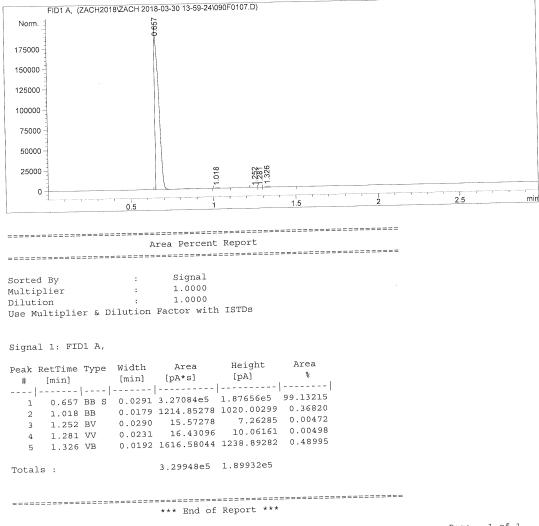


Instrument 1 7/6/2018 9:47:46 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 13-59-24\090F0107.D Sample Name: 4-Methyl Run #1

npie Name: 4-Metnyi	. Run #+	

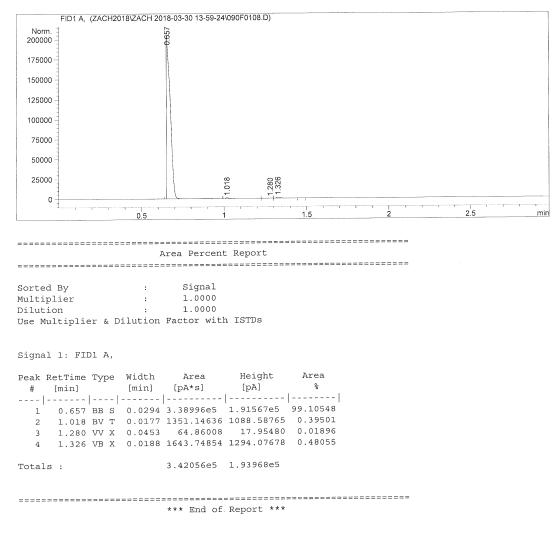
Acq. Operator : Acq. Instrument : Injection Date :		Seq. Line : 1 Location : Vial 90 Inj : 7 Inj Volume : 1 µl
Last changed Analysis Method Last changed	: 3/28/2018 2:43:48 PM by 2 : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Za (modified after loading)	8\ZACH 2018-03-30 13-59-24\ZACH2018.M Zach Taylor
Method Info	: Alditol lab.	



Instrument 1 7/6/2018 9:47:48 PM Zach Taylor

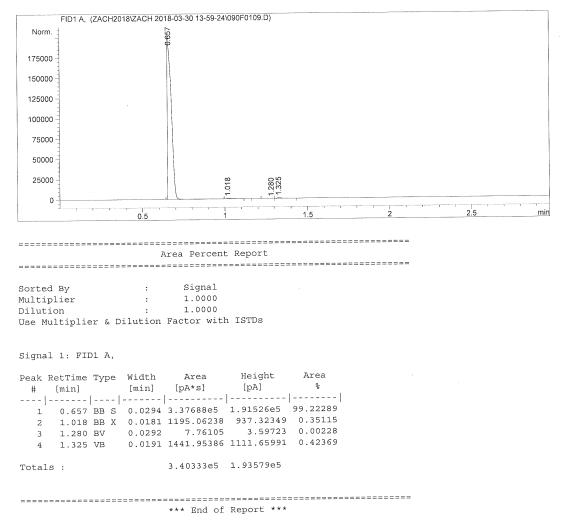
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 13-59-24\090F0108.D Sample Name: 4-Methyl Run #1

. Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 90 Acq. Instrument : Instrument 1 Injection Date : 30-Mar-18, 14:28:47 Inj: 8 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-30 13-59-24\ZACH2018.M Acq. Method Last changed : 3/28/2018 2:43:48 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 9:47:50 PM Zach Taylor

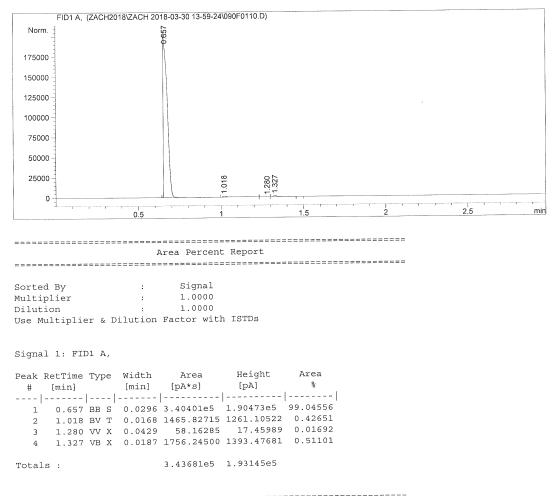
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 13-59-24\090F0109.D Sample Name: 4-Methyl Run #1 Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 90 Acq. Instrument : Instrument 1 Injection Date : 30-Mar-18, 14:32:49 Inj: 9 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-30 13-59-24\ZACH2018.M Acq. Method Last changed : 3/28/2018 2:43:48 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 9:47:52 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 13-59-24\090F0110.D Sample Name: 4-Methyl Run #1

Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument	: Instrument 1	Location : Vial 90
Injection Date	: 30-Mar-18, 14:36:52	Inj : 10
-		Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH2018	\ZACH 2018-03-30 13-59-24\ZACH2018.M
Last changed	: 3/28/2018 2:43:48 PM by Z	ach Taylor
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	
Last changed	: 7/6/2018 9:23:05 PM by Za	ich Taylor
	(modified after loading)	
Method Info	: Alditol lab.	

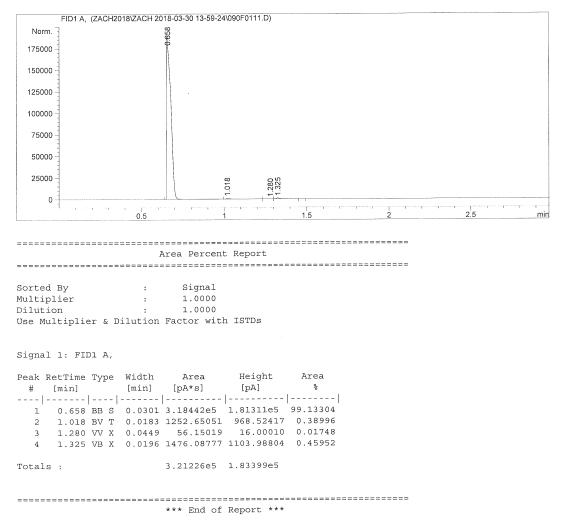


*** End of Report ***

Instrument 1 7/6/2018 9:47:54 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 13-59-24\090F0111.D Sample Name: 4-Methyl Run #1

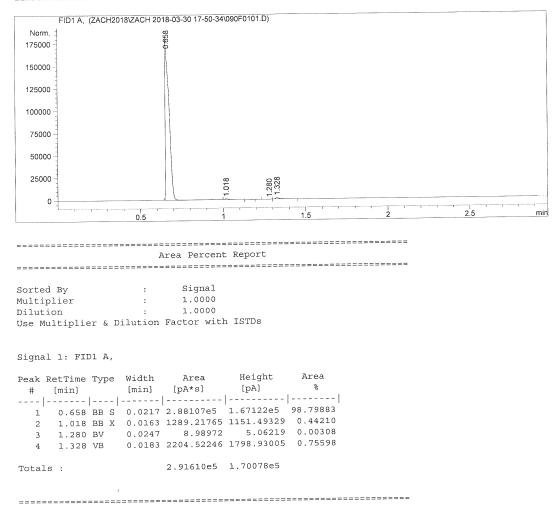
	= =			
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 90	
Injection Date	:	30-Mar-18, 14:40:54	Inj : 11	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-03-30 13-59-24\ZACH2018.M	
Last changed	:	3/28/2018 2:43:48 PM 3	by Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M	
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor	
		(modified after loading	ng)	
Method Info	:	Alditol lab.		



Instrument 1 7/6/2018 9:47:55 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\090F0101.D Sample Name: 4-Methyl Run #2

mpre Mame. + Meeny	-1-	ituii ##	
	:====		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 90
Injection Date	:	30-Mar-18, 17:51:38	Inj: l
5			Inj Volume : 1 µl
Acq. Method			ZACH 2018-03-30 17-50-34\ZACH2018.M
Last changed	:	3/28/2018 2:43:48 PM by Za	ch Taylor
Analysis Method		C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Zac	h Taylor
5		(modified after loading)	
Method Info	:	Alditol lab.	

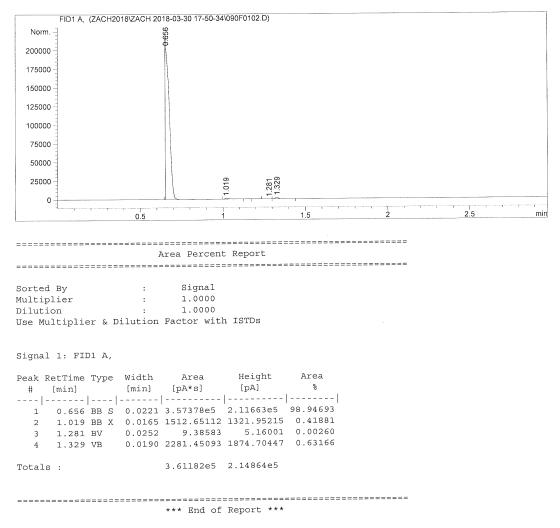


*** End of Report ***

Instrument 1 7/6/2018 9:48:19 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\090F0102.D Sample Name: 4-Methyl Run #2

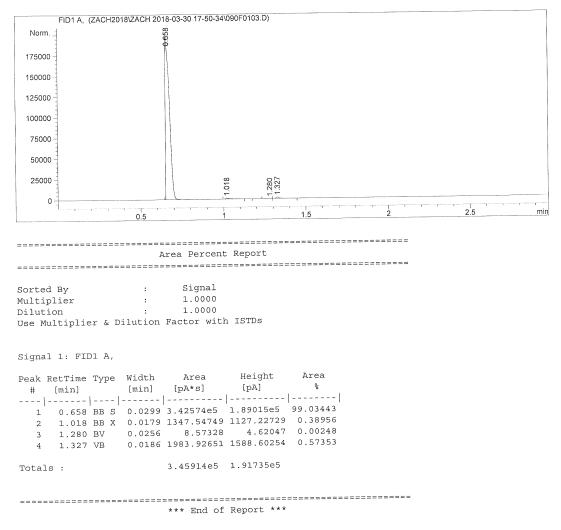
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 90	
Injection Date	:	30-Mar-18, 17:55:39	Inj : 2	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	3\ZACH 2018-03-30 17-50-34\ZACH2018.	М
Last changed	:	3/28/2018 2:43:48 PM by 3	Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M		
Last changed	:	7/6/2018 9:23:05 PM by Za	ach Taylor	
		(modified after loading)		
Method Info	:	Alditol lab.		



Instrument 1 7/6/2018 9:48:22 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\090F0103.D Sample Name: 4-Methyl Run #2

```
Acq. Operator : Zach Taylor
                                       Seq. Line :
                                                   1
                                        Location : Vial 90
Acq. Instrument : Instrument 1
                                             Inj: 3
Injection Date : 30-Mar-18, 17:59:43
                                       Inj Volume : 1 µl
             : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\ZACH2018.M
Acq. Method
             : 3/28/2018 2:43:48 PM by Zach Taylor
Last changed
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
            : 7/6/2018 9:23:05 PM by Zach Taylor
Last changed
               (modified after loading)
Method Info
             : Alditol lab.
```



Instrument 1 7/6/2018 9:48:24 PM Zach Taylor

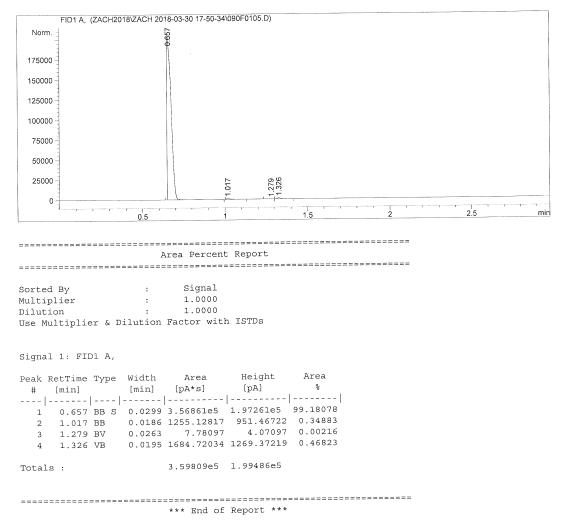
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\090F0104.D Sample Name: 4-Methyl Run #2 Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Injection Date : 30-Mar-18, 18:03:45 Inj: 4 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\ZACH2018.M Acq. Method : 3/28/2018 2:43:48 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-03-30 17-50-34\090F0104.D) Norm. _ 0.658 175000 150000 125000 100000 75000 -50000 25000 .018 280 0 2.5 0.5 1.5 Area Percent Report Signal Sorted By : Multiplier : 1.0000 : Dilution 1.0000 Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area 8 [min] [pA*s] [pA] # [min] 1 0.658 BB S 0.0300 3.46781e5 1.90806e5 99.08618 1.018 BB X 0.0175 1324.91687 1084.23230 0.37857 2
 1.280 BV
 0.0240
 7.72057
 4.51340
 0.00221

 1.327 VB
 0.0187
 1865.55750
 1484.49988
 0.53305
 3 4 3.49979e5 1.93379e5 Totals : *** End of Report ***

Instrument 1 7/6/2018 9:48:26 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\090F0105.D Sample Name: 4-Methyl Run #2

Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Injection Date : 30-Mar-18, 18:07:47 Inj: 5 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\ZACH2018.M Acq. Method : 3/28/2018 2:43:48 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info



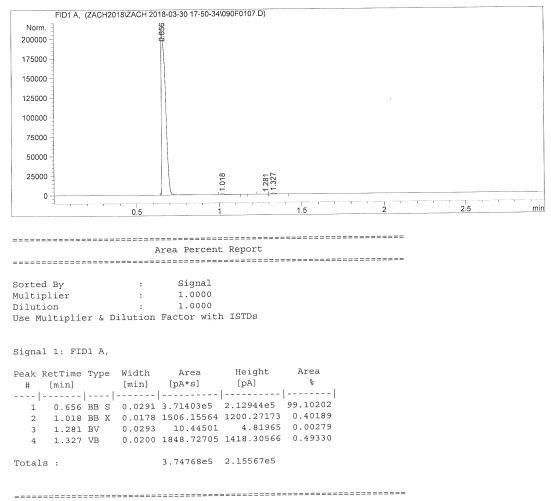
Instrument 1 7/6/2018 9:48:28 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\090F0106.D Sample Name: 4-Methyl Run #2 _____ Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Inj: 6 Injection Date : 30-Mar-18, 18:11:48 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\ZACH2018.M Acq. Method : 3/28/2018 2:43:48 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info _____ FID1 A, (ZACH2018\ZACH 2018-03-30 17-50-34\090F0106.D) Norm. 9:658 175000 150000 125000 100000 75000 50000 25000 281 325 .017 2.5 0 ····· 1. ····· 1. ···· 1. ··· min 0.5 1.5 Area Percent Report Signal Sorted By : 1.0000 Multiplier : : 1.0000 Dilution Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Area Height Peak RetTime Type Width Area [pA] 90 [min] [pA*s] # [min] 1 0.658 BB S 0.0299 3.50645e5 1.93682e5 99.18227 2 1.017 BV X 0.0187 1253.89185 944.57257 0.35467 4.46037 0.00255 1.281 VV X 0.0267 9.00115 3 4 1.325 VB X 0.0196 1628.06323 1214.61682 0.46051 3.53536e5 1.95846e5 Totals : *** End of Report ***

Instrument 1 7/6/2018 9:48:30 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\090F0107.D Sample Name: 4-Methyl Run #2

-Seq. Line : 1 Acq. Operator : Zach Taylor Acq. Instrument : Instrument 1 Location : Vial 90 Injection Date : 30-Mar-18, 18:15:51 Inj : 7 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\ZACH2018.M Acq. Method : 3/28/2018 2:43:48 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info

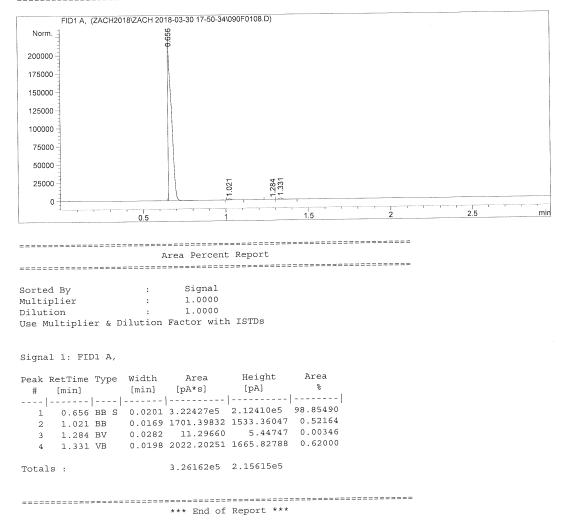


*** End of Report ***

Instrument 1 7/6/2018 9:48:31 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\090F0108.D Sample Name: 4-Methyl Run #2

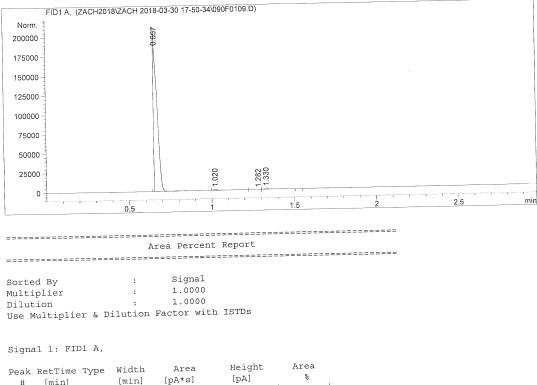
Acq. Operator	: Zach Taylor	Seq. Line : 1		
Acq. Instrument	: Instrument 1	Location : Vial 90		
	: 30-Mar-18, 18:19:54	Inj: 8		
2		Inj Volume : 1 µl		
Acq. Method	: C:\Chem32\1\DATA\ZACH2018	\ZACH 2018-03-30 17-50-34\ZACH2018.M		
Last changed	: 3/28/2018 2:43:48 PM by Z	ach Taylor		
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M			
Last changed	: 7/6/2018 9:23:05 PM by Za	ch Taylor		
	(modified after loading)			
Method Info	: Alditol lab.			



Instrument 1 7/6/2018 9:48:33 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\090F0109.D Sample Name: 4-Methyl Run #2

nple Name: 4-Methy	I Run #2	
-	: Instrument 1 : 30-Mar-18, 18:23:56	Seq. Line : 1 Location : Vial 90 Inj : 9 Inj Volume : 1 µl
Last changed Analysis Method	: C:\Chem32\1\DATA\ZACH2018 : 3/28/2018 2:43:48 PM by Z : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Za (modified after loading)	
Method Info	: Alditol lab.	

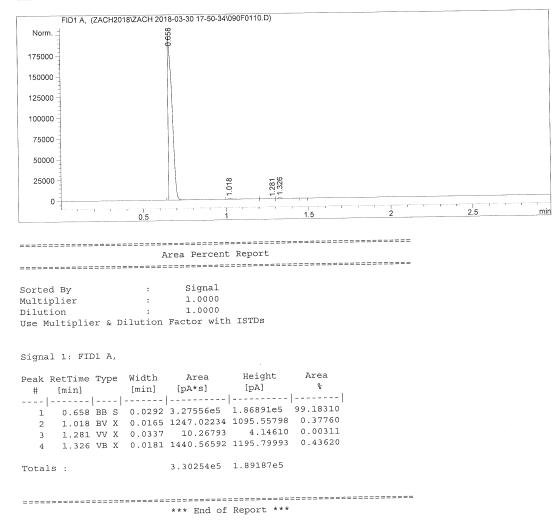


*** End of Report ***

Instrument 1 7/6/2018 9:48:35 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\090F0110.D Sample Name: 4-Methyl Run #2

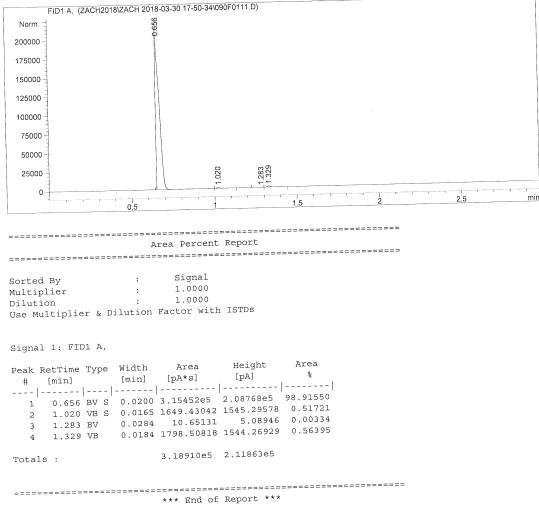
Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Inj : 10 Injection Date : 30-Mar-18, 18:28:00 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\ZACH2018.M Acq. Method : 3/28/2018 2:43:48 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info



Instrument 1 7/6/2018 9:48:36 PM Zach Taylor

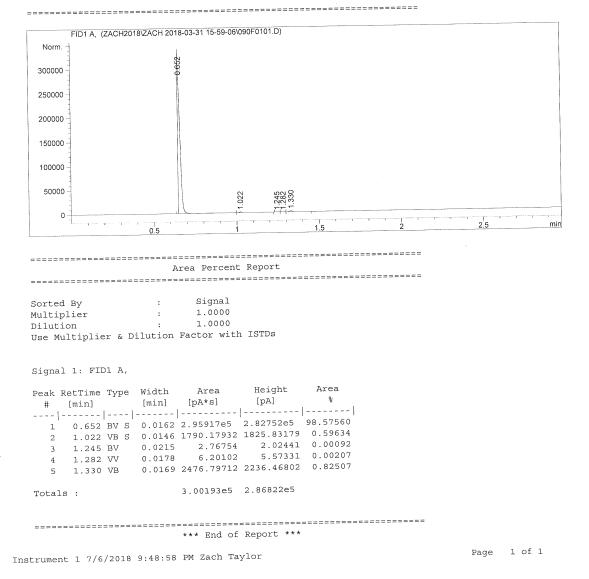
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\090F0111.D Sample Name: 4-Methyl Run #2

Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Inj : 11 Injection Date : 30-Mar-18, 18:32:05 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-30 17-50-34\ZACH2018.M Acq. Method : 3/28/2018 2:43:48 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info



Instrument 1 7/6/2018 9:48:38 PM Zach Taylor

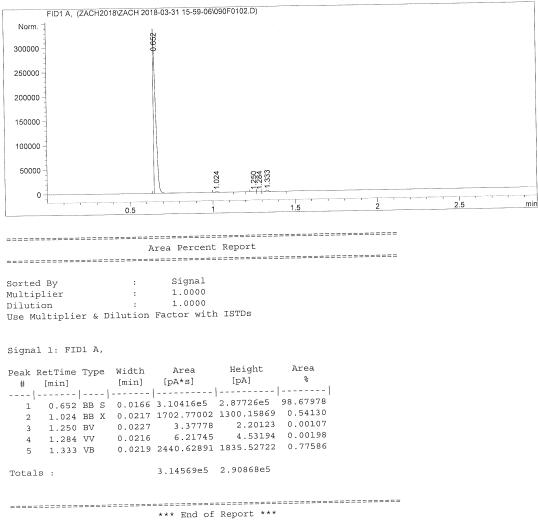
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\090F0101.D Sample Name: 4-Methyl Run #3 _____ Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Injection Date : 31-Mar-18, 16:00:21 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\ZACH2018.M Acq. Method : 3/28/2018 2:43:48 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



239

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\090F0102.D Sample Name: 4-Methyl Run #3

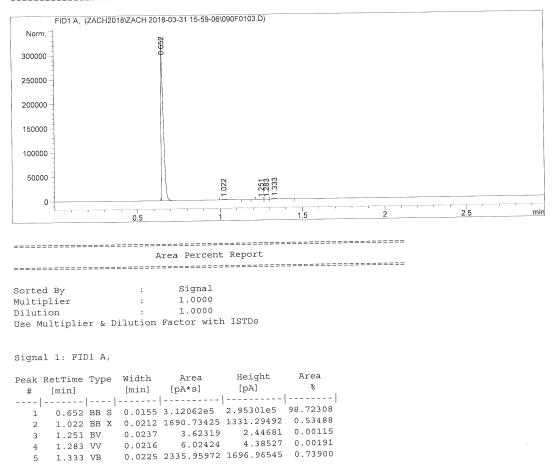
```
Seq. Line : 1
Acq. Operator : Zach Taylor
                                        Location : Vial 90
Acq. Instrument : Instrument 1
                                             Inj: 2
Injection Date : 31-Mar-18, 16:04:23
                                       Inj Volume : 1 µl
            : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\ZACH2018.M
Acq. Method
            : 3/28/2018 2:43:48 PM by Zach Taylor
Last changed
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
               (modified after loading)
             : Alditol lab.
Method Info
```



Instrument 1 7/6/2018 9:49:00 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\090F0103.D Sample Name: 4-Methyl Run #3

apre name. i neeny	1 TOUR 110	
Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument	: Instrument 1	Location : Vial 90
Injection Date	: 31-Mar-18, 16:08:26	Inj: 3
5		Inj Volume : 1 µl
	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\ZACH2018.M	
Last changed	3/28/2018 2:43:48 PM by Zach Taylor	
Analysis Method	C:\CHEM32\l\METHODS\Z4.M	
Last changed		
	(modified after loading)	
Method Info	: Alditol lab.	



Totals :

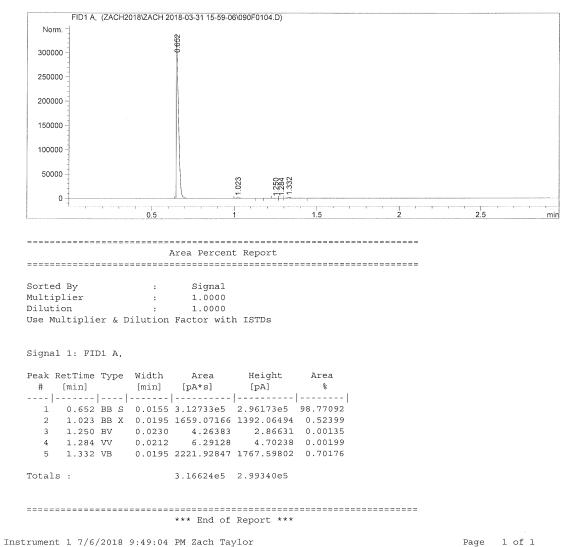
3.16099e5 2.98336e5

*** End of Report ***

Instrument 1 7/6/2018 9:49:02 PM Zach Taylor

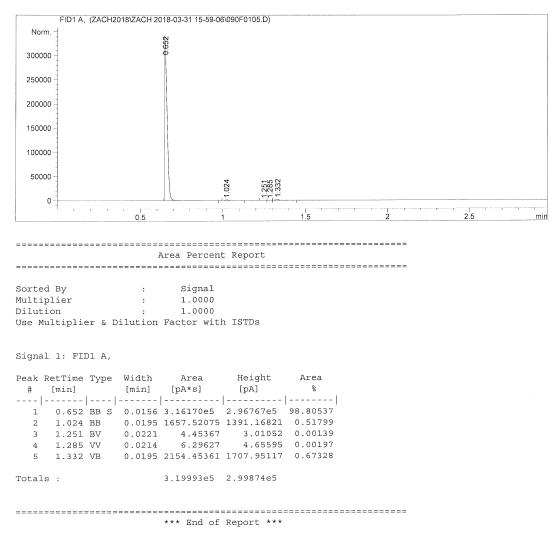
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\090F0104.D Sample Name: 4-Methyl Run #3

Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 90	
Injection Date	:	31-Mar-18, 16:12:28	Inj : 4	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-03-31 15-59-06\ZACH2018.M	1
Last changed	:	3/28/2018 2:43:48 PM by	Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.		
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor	
		(modified after loading)	
Method Info	:	Alditol lab.		



Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\090F0105.D Sample Name: 4-Methyl Run #3

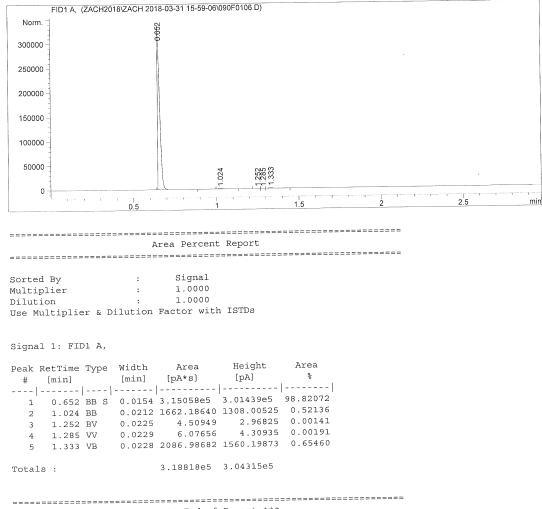
Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 90			
Injection Date	:	31-Mar-18, 16:16:32	Inj: 5			
			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	.8\ZACH 2018-03-31 15-59-06\ZACH2018.	М		
Last changed	:	3/28/2018 2:43:48 PM by	Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	1			
Last changed	:	7/6/2018 9:23:05 PM by Z	Sach Taylor			
		(modified after loading)				
Method Info	:	Alditol lab.				
5		(modified after loading)	-			



Instrument 1 7/6/2018 9:49:06 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\090F0106.D Sample Name: 4-Methyl Run #3

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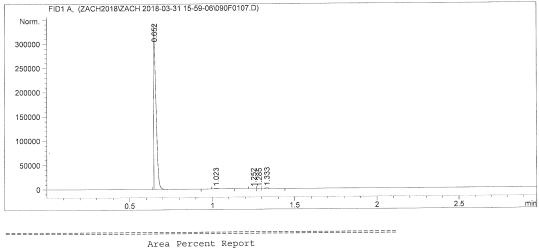


*** End of Report ***

Instrument 1 7/6/2018 9:49:08 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\090F0107.D Sample Name: 4-Methyl Run #3

Acq. Operator	: Zach Taylor	Seq. Line : 1					
Acq. Instrument	: Instrument 1	Location : Vial 90					
Injection Date	: 31-Mar-18, 16:24:41	Inj: 7					
-		Inj Volume : l µl					
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\	ZACH 2018-03-31 15-59-06\ZACH2018.M					
Last changed	: 3/28/2018 2:43:48 PM by Za	ch Taylor					
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M						
Last changed	: 7/6/2018 9:23:05 PM by Zac	h Taylor					
	(modified after loading)						
Method Info	: Alditol lab.						



Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

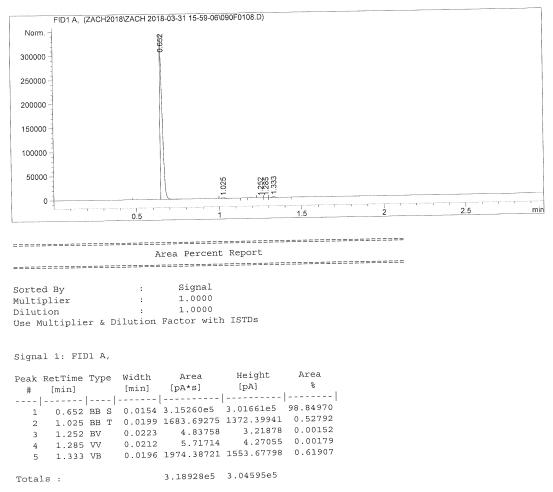
Peak R #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %	
1	0.652	BB S	0.0153	3.11565e5	2.99626e5	98.82028	
2	1.023	BB	0.0207	1674.27454	1363.98633	0.53104	
3	1.252	BV	0.0231	4.63865	3.09012	0.00147	
4	1.285	vv	0.0216	6.02506	4.39664	0.00191	
5	1.333	VB	0.0207	2034.51733	1567.30103	0.64530	
Totals	:			3.15284e5	3.02564e5		

*** End of Report ***

Instrument 1 7/6/2018 9:49:10 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\090F0108.D Sample Name: 4-Methyl Run #3

```
Acq. Operator: Zach TaylorSeq. Line : 1Acq. Instrument: Instrument 1Location : Vial 90Injection Date: 31-Mar-18, 16:28:43Inj : 8Acq. Method: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-3115-59-06\ZACH2018.MLast changed: 3/28/20182:43:48 PM by Zach TaylorAnalysis Method: C:\CHEM32\1\METHODS\Z4.MLast changed: 7/6/20189:23:05 PM by Zach Taylor<br/>(modified after loading)Method Info: Alditol lab.
```

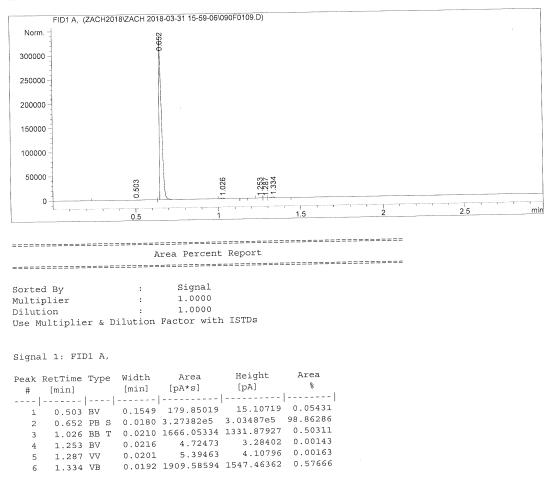


*** End of Report ***

Instrument 1 7/6/2018 9:49:12 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\090F0109.D Sample Name: 4-Methyl Run #3

```
Acq. Operator : Zach Taylor Seq. Line : 1
                                             Location : Vial 90
Acq. Instrument : Instrument 1
                                                 Inj: 9
Injection Date : 31-Mar-18, 16:32:46
                                           Inj Volume : 1 µl
              : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\ZACH2018.M
Acq. Method
              : 3/28/2018 2:43:48 PM by Zach Taylor
Last changed
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
             : 7/6/2018 9:23:05 PM by Zach Taylor
Last changed
                (modified after loading)
              : Alditol lab.
Method Info
```



Totals : 3.31148e5 3.06389e5

Instrument 1 7/6/2018 9:49:13 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\090F0110.D Sample Name: 4-Methyl Run #3 Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 90 Injection Date : 31-Mar-18, 16:36:48 Inj : 10 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\ZACH2018.M Acq. Method Last changed : 3/28/2018 2:43:48 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-03-31 15-59-06\090F0110.D) Norm. 300000 250000 200000 150000 100000 50000 285 285 332 352 0 0.5 2.5 mir 1.5 Area Percent Report ______ _____ Sorted By : Signal Multiplier 1.0000 : Dilution 1.0000 Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area Ŷ [pA] [min] [pA*s] # [min] 0.0417 16.29897 4.84080 0.00514 1 0.352 BB 0.652 BB S 0.0155 3.13566e5 2.97975e5 98.89399 2 0.0191 1638.58459 1413.63928 0.51678 3 1.024 BB 3.30280 0.00156 1.252 BV 0.0223 4.94640 4 0.0211 5.70145 4.29637 0.00180 1.285 VV 5 0.0192 1841.32434 1490.49792 0.58073 1.332 VB 6 3.17073e5 3.00892e5 Totals :

Instrument 1 7/6/2018 9:49:15 PM Zach Taylor

Instrument 1 7/6/2018 9:49:17 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\090F0111.D Sample Name: 4-Methyl Run #3 Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Inj : 11 Injection Date : 31-Mar-18, 16:40:52 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-03-31 15-59-06\ZACH2018.M Acq. Method : 3/28/2018 2:43:48 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab.

FID1 A, (ZACH2018\ZACH 2018-03-31 15-59-06\090F0111.D) Norm. 0.652 300000 250000 200000 150000 100000 50000 285 285 333 024 0 2.5 min 0.5 1.5 Area Percent Report Signal Sorted By : 1.0000 Multiplier : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Height Area Area [pA] Ŷ [pA*s] # [min] [min] 1 0.652 BB S 0.0155 3.14905e5 2.99042e5 98.89605 1.024 BB T 0.0183 1678.82300 1450.96521 0.52724 2
 1.253
 BV
 0.0225
 5.01849
 3.46593
 0.00158

 1.285
 VV
 0.0209
 5.61263
 4.29085
 0.00176

 1.333
 VB
 0.0190
 1825.75537
 1497.52551
 0.57338
 3 4 5 3.18420e5 3.01998e5 Totals : *** End of Report ***

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\088F0101.D
Sample Name: 4-methoxy
   _____
  Acq. Operator : Zach Taylor
                                       Seq. Line : 1
                                        Location : Vial 88
   Acq. Instrument : Instrument 1
                                            Inj: 1
   Injection Date : 26-May-18, 17:32:57
                                       Inj Volume : 1 µl
              : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\Z1.M
   Acq. Method
              : 5/26/2018 5:27:01 PM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
              : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                (modified after loading)
   Method Info
               : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-26 17-31-54\088F0101.D)
     Norm.
    200000
    150000
    100000
     50000
                               > 1.044
1.119
                                                           2.284
                                    259
       0
                   0.5
                                                               2.5
                                                                         min
                                         1.5
   Area Percent Report
   _____
   Sorted By
                    :
                         Signal
                         1.0000
   Multiplier
                    :
                         1.0000
   Dilution
                    :
 · Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
                                 Height
                                         Area
   Peak RetTime Type Width
                         Area
                                [pA]
                                         망
                        [pA*s]
    #
       [min]
                 [min]
    0.735 BV S 0.0156 2.32089e5 2.18653e5 93.08990
     1
        1.044 VB S 0.0160 9648.76465 1.00531e4
                                        3.87008
     2
        1.119 BB X 0.0163 20.62189 19.59772 0.00827
     3
                                1.50220 0.00071
2.07892 0.00160
        1.259 BB 0.0186
                        1.77986
     4
        2.042 BB
                         3.98516
                 0.0288
     5
                0.0602 7552.90527 1687.56140 3.02944
     6
        2.284 BB
   Totals :
                       2.49317e5 2.30416e5
```

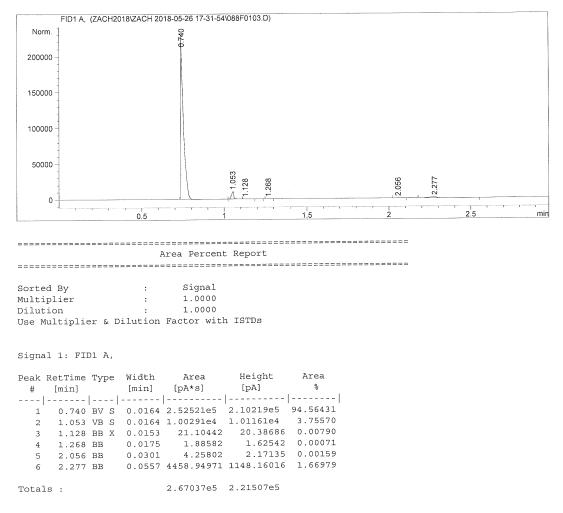
Instrument 1 7/6/2018 9:50:35 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\088F0102.D
Sample Name: 4-methoxy
   -
   Acq. Operator : Zach Taylor
                                        Seq. Line : 1
                                        Location : Vial 88
   Acq. Instrument : Instrument 1
                                            Inj: 2
   Injection Date : 26-May-18, 17:36:56
                                       Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\Z1.M
   Acq. Method
               : 5/26/2018 5:27:01 PM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
              : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                (modified after loading)
   Method Info
               : Alditol lab.
   _____
         FID1 A, (ZACH2018\ZACH 2018-05-26 17-31-54\088F0102.D)
     Norm.
                         99
    200000
    150000
    100000
     50000
                               .047
                                                           2.283
                                 -1.121
                                    262
       0
              ----p---
                 2.5
                                                                         mir
                   0.5
   Area Percent Report
   Sorted By
                    :
                         Signal
   Multiplier
                         1.0000
                    :
                         1.0000
   Dilution
                    :
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
   Peak RetTime Type Width
                                 Height
                                         Area
                         Area
                        [pA*s]
                                 [pA]
                                          ŝ
    # [min]
                 [min]
   _____
                               -----
        0.736 BV S 0.0171 2.35782e5 2.10149e5 93.30655
     1
        1.047 VB S 0.0162 1.04713e4 1.07275e4
                                        4.14381
     2
        1.121 BB X 0.0166 23.15126 21.48392 0.00916
     3
                                1.72767 0.00080
        1.262 BB 0.0185
                       2.02969
     4
                         4.66258
                                 2.39000 0.00185
                 0.0292
        2.046 BB
     5
                0.0563 6412.98486 1576.33398 2.53782
     6
        2.283 BB
                       2.52696e5 2.22479e5
   Totals :
```

Instrument 1 7/6/2018 9:50:38 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\088F0103.D Sample Name: 4-methoxy

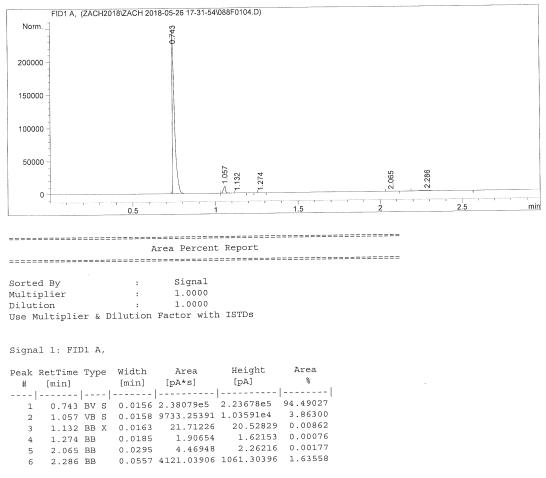
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	26-May-18, 17:40:58	Inj : 3
-			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018	3\ZACH 2018-05-26 17-31-54\Z1.M
Last changed	:	5/26/2018 5:27:01 PM by 2	Sach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Za	ach Taylor
		(modified after loading)	
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 9:50:40 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\088F0104.D Sample Name: 4-methoxy

pre Name. 4-meenoxy							
Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 88				
Injection Date	:	26-May-18, 17:44:58	Inj : 4				
2			Inj Volume : l µl				
Acq. Method		C:\Chem32\1\DATA\ZACH2018\ZA					
Last changed	:	5/26/2018 5:27:01 PM by Zach	Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M					
Last changed	:	7/6/2018 9:23:05 PM by Zach	Taylor				
		(modified after loading)					
Method Info	:	Alditol lab.					

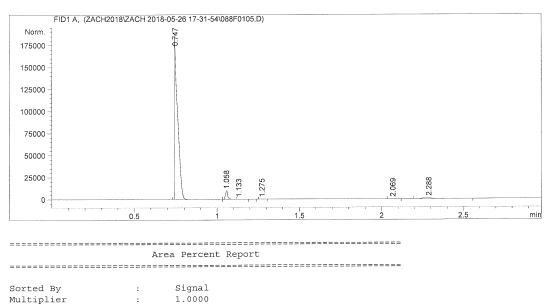


Totals : 2.51961e5 2.35123e5

Instrument 1 7/6/2018 9:50:42 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\088F0105.D Sample Name: 4-methoxy

Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 88				
Injection Date	:	26-May-18, 17:48:59	Inj : 5				
			Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH	H2018\ZACH 2018-05-26 17-31-54\Z1.M				
Last changed	:	5/26/2018 5:27:01 PM	by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\2	Z4.M				
Last changed	:	7/6/2018 9:23:05 PM b	oy Zach Taylor				
		(modified after loadi	ing)				
Method Info	:	Alditol lab.					



Signal 1: FID1 A,

Dilution

#	RetTime [min]	11	[min]	Area [pA*s]	Height [pA]	Area %
1	0.747	BV S	0.0182	2.42945e5	1.79104e5	94.74752
2	1.058	VB S	0.0163	9475.11035	9603.69727	3.69525
3	1.133	вв х	0.0159	21.04815	19.39722	0.00821
4	1.275	BB	0.0188	1.93126	1.61065	0.00075
5	2.069	BB	0.0297	4.39549	2.27766	0.00171
6	2.288	BB	0.0549	3965.55298	1021.62402	1,54655

1.0000

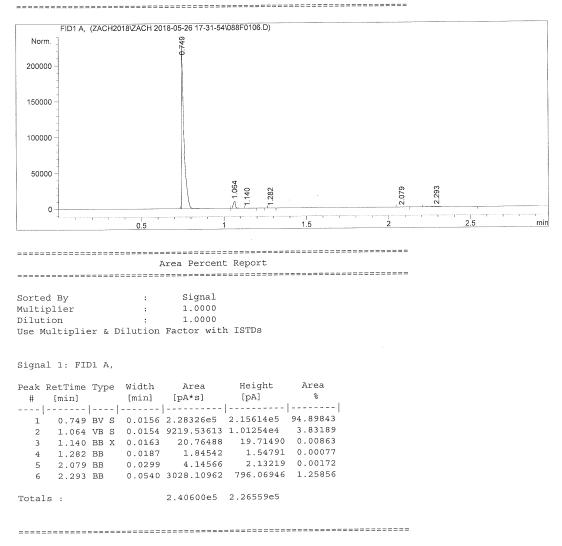
. Use Multiplier & Dilution Factor with ISTDs

Totals :

2.56413e5 1.89752e5

Instrument 1 7/6/2018 9:50:44 PM Zach Taylor

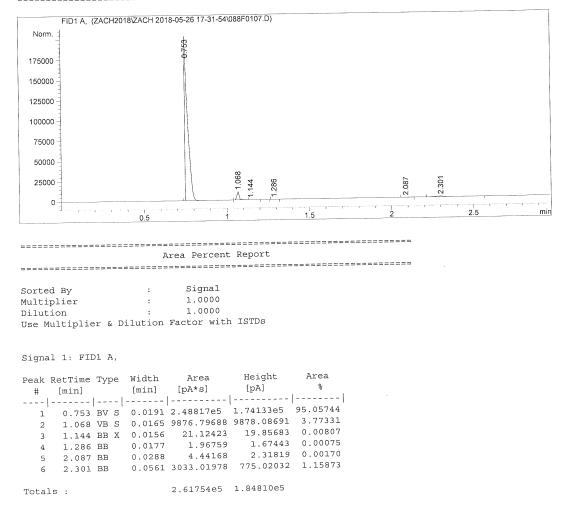
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\088F0106.D Sample Name: 4-methoxy Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 26-May-18, 17:52:59 Inj: 6 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\Z1.M Acq. Method : 5/26/2018 5:27:01 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 9:50:46 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\088F0107.D Sample Name: 4-methoxy

npie Name: 4-methoxy						
Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	26-May-18, 17:56:59	Inj : 7			
5		-	Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZAC	CH 2018-05-26 17-31-54\Z1.M			
Last changed		5/26/2018 5:27:01 PM by Zach	Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M				
Last changed	:	7/6/2018 9:23:05 PM by Zach 5	Taylor			
		(modified after loading)				
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 9:50:47 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\088F0108.D Sample Name: 4-methoxy

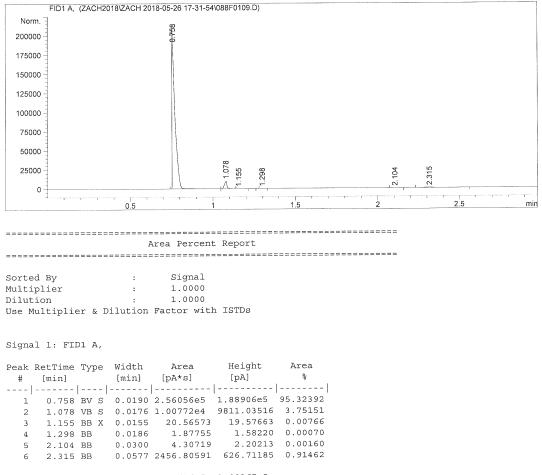
	oxy		
			===
	: Zach Taylor	Seq. Line : 1	
	: Instrument 1	Location : Vial	88
Injection Date	: 26-May-18, 18:00:59	Inj : 8	
		Inj Volume : 1 µl	
Acq. Method	: C:\Chem32\1\DATA\ZACH	H2018\ZACH 2018-05-26 17-31-	54\Z1.M
	: 5/26/2018 5:27:01 PM		
Analysis Method	l : C:\CHEM32\1\METHODS\2	Z4.M	
Last changed	: 7/6/2018 9:23:05 PM k	by Zach Taylor	
	(modified after load:	ing)	
Method Info	: Alditol lab.		
================			===
			· .
FID1 A, (ZA	CH2018\ZACH 2018-05-26 17-31-54\08	38F0108.D)	
Norm.			
	0.759		
140000 -	0.7		
-			
120000 -			
-			
100000 -			
80000			
60000 -			
10000			
40000 -			
		0	10
20000 -		7.148	295
0		Δ. Ξ	<u>N</u>
· · · · · · · · · · · · · · · · · · ·			2 2.5 min
	0.5 1	1.5	2 2.5
			====
			= = = =
	Area Percent	Report	====
	Area Percent		
	Area Percent	Report	
Sorted By	Area Percent	Report	
Sorted By Multiplier	Area Percent : Signal : 1.0000	Report	
Sorted By Multiplier Dilution	Area Percent : Signal : 1.0000 : 1.0000	Report	
Sorted By Multiplier Dilution	Area Percent : Signal : 1.0000	Report	
Sorted By Multiplier Dilution	Area Percent : Signal : 1.0000 : 1.0000	Report	
Sorted By Multiplier Dilution Use Multiplier	Area Percent : Signal : 1.0000 : 1.0000 & Dilution Factor with	Report	
Sorted By Multiplier Dilution Use Multiplier	Area Percent : Signal : 1.0000 : 1.0000 & Dilution Factor with	Report	
Sorted By Multiplier Dilution Use Multiplier Signal 1: FID1	Area Percent : Signal : 1.0000 : 1.0000 & Dilution Factor with A,	Report	
Sorted By Multiplier Dilution Use Multiplier Signal 1: FID1 Peak RetTime Ty	Area Percent : Signal : 1.0000 : 1.0000 & Dilution Factor with A, ype Width Area	Report ISTDs Height Area	
Sorted By Multiplier Dilution Use Multiplier Signal 1: FID1 Peak RetTime Ty # [min]	Area Percent : Signal : 1.0000 : 1.0000 & Dilution Factor with A, ype Width Area [min] [pA*s]	Report ISTDs Height Area [pA] %	
Sorted By Multiplier Dilution Use Multiplier Signal 1: FID1 Peak RetTime Ty # [min]	Area Percent : Signal : 1.0000 : 1.0000 & Dilution Factor with A, ype Width Area [min] [pA*s]	Report 	
Sorted By Multiplier Dilution Use Multiplier Signal 1: FID1 Peak RetTime Ty # [min] 1 0.759 B	Area Percent : Signal : 1.0000 : 1.0000 & Dilution Factor with A, ype Width Area [min] [pA*s] 	Report 	
Sorted By Multiplier Dilution Use Multiplier Signal 1: FID1 Peak RetTime Ty # [min] 1 0.759 B	Area Percent : Signal : 1.0000 : 1.0000 & Dilution Factor with A, ype Width Area [min] [pA*s] 	Report 	
Sorted By Multiplier Dilution Use Multiplier Signal 1: FID1 Peak RetTime Ty # [min] - 1 0.759 By 2 1.070 VI	Area Percent : Signal : 1.0000 : 1.0000 & Dilution Factor with A, ype Width Area [min] [pA*s] 	Report ISTDs Height Area [pA] % 	
Sorted By Multiplier Dilution Use Multiplier Signal 1: FID1 Peak RetTime Ty # [min] - 1 0.759 By 2 1.070 VI	Area Percent : Signal : 1.0000 : 1.0000 & Dilution Factor with A, ype Width Area [min] [pA*s] 	Report ISTDs Height Area [pA] % 	
Sorted By Multiplier Dilution Use Multiplier Signal 1: FID1 Peak RetTime Ty # [min] 1 0.759 By 2 1.070 Vi 3 1.148 Bj	Area Percent : Signal : 1.0000 : 1.0000 & Dilution Factor with A, ype Width Area [min] [pA*s] 	Report ISTDs Height Area [pA] % 	
Sorted By Multiplier Dilution Use Multiplier Signal 1: FID1 Peak RetTime Ty # [min] 1 0.759 By 2 1.070 Vi 3 1.148 Bj	Area Percent : Signal : 1.0000 : 1.0000 & Dilution Factor with A, ype Width Area [min] [pA*s] 	Report ISTDs Height Area [pA] % 	

*** End of Report ***

Instrument 1 7/6/2018 9:50:49 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\088F0109.D Sample Name: 4-methoxy Acq. Operator : Zach Taylor Seq. Line : 1

Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	26-May-18, 18:05:02	Inj : 9
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-26 17-31-54\Z1.M
Last changed	:	5/26/2018 5:27:01 PM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	1
Last changed	:	7/6/2018 9:23:05 PM by Z	ach Taylor
		(modified after loading)	
Method Info	:	Alditol lab.	



Totals :

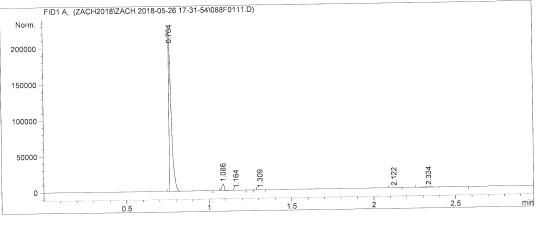
2.68616e5 1.99367e5

Instrument 1 7/6/2018 9:50:51 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\088F0110.D
Sample Name: 4-methoxy
    1
   Acq. Operator : Zach Taylor
                                       Seq. Line :
   Acq. Instrument : Instrument 1
                                        Location : Vial 88
                                            Inj : 10
   Injection Date : 26-May-18, 18:08:59
                                       Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\Z1.M
   Acq. Method
   Last changed
              : 5/26/2018 5:27:01 PM by Zach Taylor
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
              : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                 (modified after loading)
   Method Info
               : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-26 17-31-54\088F0110.D)
     Norm.
                         0.761
    200000
    175000
    150000
    125000
    100000
     75000
     50000
                                .082
     25000
                                                            2.322
                                  59
                                                       à
       0
                                                                  min
                                          1.5
                                                               2.5
                   0.5
   _____
                     Area Percent Report
   Sorted By
                    •
                         Signal
   Multiplier
                         1.0000
                    :
                         1.0000
   Dilution
                    :
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
   Peak RetTime Type Width
                         Area
                                 Height
                                         Area
                        [pA*s]
                                 [pA]
                                          %
                 [min]
    #
       [min]
    0.761 BV S 0.0176 2.48431e5 1.90791e5 95.34830
     1
        1.082 VB S 0.0182 9784.35449 9036.32324 3.75526
      2
        1.159 BB X 0.0172 21.04297 18.62966 0.00808
      3
                                 1.54360 0.00071
                        1.86228
        1.303 BB 0.0189
      4
                         4.18025
                                 2.11241 0.00160
        2.112 BB
                 0.0303
      5
                0.0579 2308.60303 597.30157 0.88605
      6
        2.322 BB
                       2.60551e5 2.00447e5
   Totals :
   Page 1 of 1
 Instrument 1 7/6/2018 9:50:52 PM Zach Taylor
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 17-31-54\088F0111.D Sample Name: 4-methoxy

Acq. Operator :		Seq. Line : 1				
Acg. Instrument :	Instrument 1	Location : Vial 88				
Injection Date :	26-May-18, 18:12:59	Inj : 11				
2		Inj Volume : 1 µl				
Last changed : Analysis Method :	C:\Chem32\1\DATA\ZACH201; 5/26/2018 5:27:01 PM by 3 C:\CHEM32\1\METHODS\Z4.M 7/6/2018 9:23:05 PM by Z (modified after loading)					
Method Info	Alditol lab.					



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

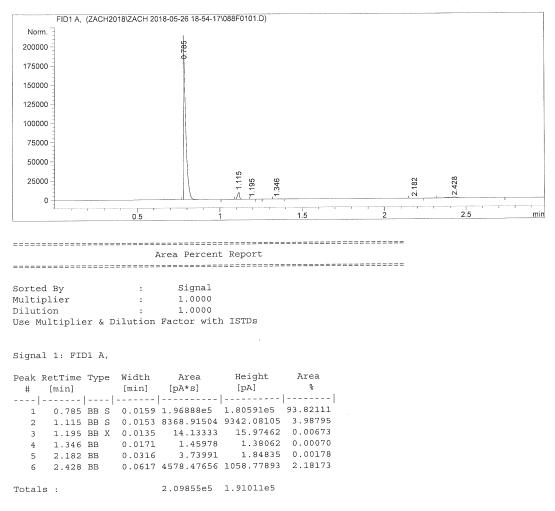
Signal 1: FID1 A,

Peak Re # [tTime min]	Тур	be	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.764	BB	s	0.0158	2.19611e5	2.03117e5	95.23398
	1.086	BB	S	0.0159	8736.95605	9172.17188	3.78878
		BB		0.0121	11.07656	16.02759	0.00480
4	1.309		2	0.0190	1.71409	1.41077	0.00074
	2.122			0.0294	3.91756	1.98734	0.00170
5					2236.83789	574.29840	0.97000
6	2.334	BB		0.05/4	2230.03709	574.25010	0.0
Totals	:				2.30601e5	2.12883e5	

Instrument 1 7/6/2018 9:50:54 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 18-54-17\088F0101.D Sample Name: 4-methoxy

==================						
Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	26-May-18, 18:55:19	Inj: 1			
			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-26 18-54-17\Z1.M			
Last changed	:	5/26/2018 5:27:01 PM k	y Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M			
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor			
		(modified after loadir	lg)			
Method Info	:	Alditol lab.				



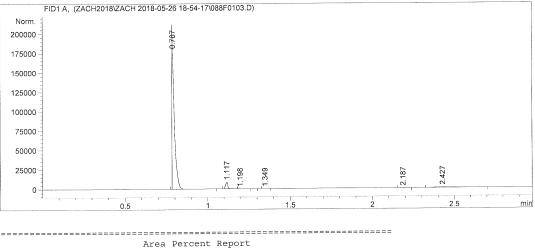
Instrument 1 7/6/2018 9:51:34 PM Zach Taylor

Instrument 1 7/6/2018 9:51:36 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 18-54-17\088F0102.D
Sample Name: 4-methoxy
   Acq. Operator : Zach Taylor
                                      Seq. Line :
                                                 1
                                        Location : Vial 88
   Acq. Instrument : Instrument 1
                                           Inj: 2
   Injection Date : 26-May-18, 18:59:19
                                      Inj Volume : 1 µl
              : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 18-54-17\Z1.M
   Acq. Method
              : 5/26/2018 5:27:01 PM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
             : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                (modified after loading)
               : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-26 18-54-17\088F0102.D)
     Norm.
                         786
    200000
    175000 -
    150000 -
    125000
    100000
     75000
     50000
                                                             428
                                                        84
     25000
                                  197
                                      347
       0
                                                              25
                                                                        mir
                                         15
                   0.5
   Area Percent Report
   Signal
   Sorted By
                    :
   Multiplier
                    :
                         1.0000
                         1.0000
   Dilution
                    .
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
                                         Area
                                 Height
   Peak RetTime Type Width
                         Area
                                         00
                  [min]
                        [pA*s]
                                 [pA]
       [min]
     #
    0.786 BV S 0.0153 1.99353e5 1.92779e5 94.01875
     1
        1.116 VB S 0.0170 8222.46094 8408.36523 3.87786
      2
        1.197 BB X 0.0167 18.31958 16.80576 0.00864
      3
                                1.33344 0.00076
                        1.60799
         1.347 BB
                  0.0197
      4
                  0.0303 3.65175
                                 1.84504 0.00172
         2.184 BB
      5
                 0.0620 4436.34814 1035.30542 2.09226
         2.428 BB
      6
                       2.12036e5 2.02243e5
    Totals :
    Page 1 of 1
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 18-54-17\088F0103.D Sample Name: 4-methoxy

Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 88				
Injection Date	:	26-May-18, 19:03:20	Inj: 3				
			Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-26 18-54-17\Z1.M				
Last changed	:	5/26/2018 5:27:01 PM }	5/26/2018 5:27:01 PM by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	4.M				
Last changed	:	7/6/2018 9:23:05 PM by	y Zach Taylor				
		(modified after loading	ng)				
Method Info	:	Alditol lab.					



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

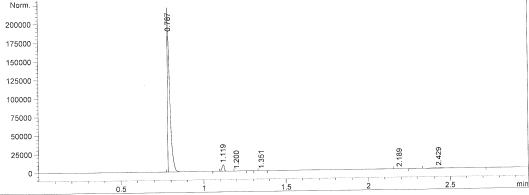
Signal 1: FID1 A,

Peak Re	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.787	BB S	0.0164	2.01095e5	1.78300e5	94.39416
2	1.117	BB S	0.0155	7909.08398	8651.48242	3.71253
3	1.198	BB T	0.0128	11.34649	15.06302	0.00533
4	1.349	BB	0.0190	1.57930	1.29640	0.00074
5	2.187	BB	0.0303	3.45159	1.74168	0.00162
6	2.427	BB	0.0603	4017.07642	954.45160	1.88562
Totals	:			2.13038e5	1.87924e5	

Instrument 1 7/6/2018 9:51:38 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 18-54-17\088F0104.D Sample Name: 4-methoxy

ipie Name: 4-mecno	эхү			
Acq. Operator	: Zach Taylor	Seq. Line : 1		
Acq. Instrument		Location : Vial 88		
	: 26-May-18, 19:07:20	Inj : 4		
111,0001011 2000	,	Inj Volume : 1 µl		
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZAC	CH 2018-05-26 18-54-17\Z1.M		
Last changed	: 5/26/2018 5:27:01 PM by Zach			
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M			
Last changed	: 7/6/2018 9:23:05 PM by Zach	Taylor		
j	(modified after loading)			
Method Info	: Alditol lab.			
FID1 A, (ZAG	CH2018\ZACH 2018-05-26 18-54-17\088F0104.D)			
Marina di				



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

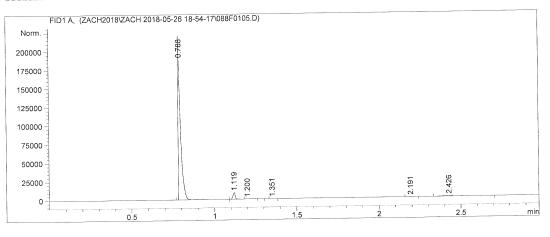
Signal 1: FID1 A,

Peak R #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
ı	0.787	BB S	0.0158	2.01890e5	1.86281e5	94.35249
2	1.119	BB S	0.0159	8223.78027	8622.01074	3.84334
3	1.200	BB T	0.0126	11.18859	15.13518	0.00523
4	1.351	BB	0.0196	1.69006	1.33401	0.00079
5	2.189	BB	0.0320	3.68554	1.78864	0.00172
6	2.429	BB	0.0626	3843.88525	900.43628	1.79642
Totals	:			2.13975e5	1.95822e5	

Instrument 1 7/6/2018 9:51:39 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 18-54-17\088F0105.D Sample Name: 4-methoxy

mpie Name: 4-metric)X	<i>!</i>	
	= == :		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
		26-May-18, 19:11:21	Inj: 5
		-	Inj Volume : 1 µl
Acq. Method			8\ZACH 2018-05-26 18-54-17\Z1.M
Last changed		5/26/2018 5:27:01 PM by	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.N	1
Last changed	:	7/6/2018 9:23:05 PM by 2	Mach Taylor
2		(modified after loading)	
Method Info	:	Alditol lab.	



Area Percent Report

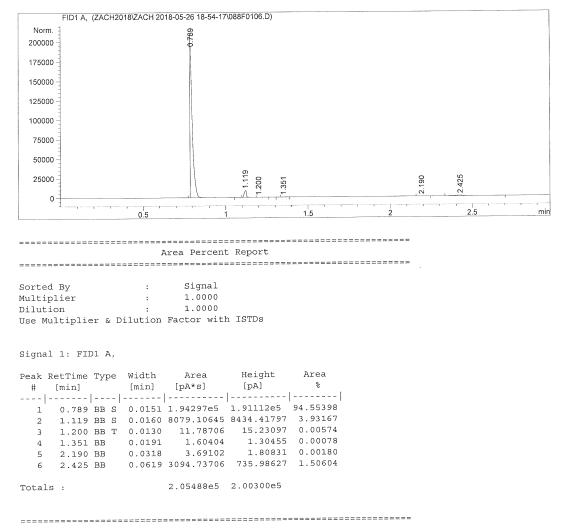
Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak Re #	etTime [min]	Тур	be	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.788	BV	s	0.0152	2.06091e5	1.88361e5	94.71085
2	1.119			0.0159	8159.05127	8576.65137	3.74955
3				0.0157	18.48580	17.22387	0.00850
4	1.351	BB		0.0191	1.57177	1.28513	0.00072
5	2.191			0.0303	3.59081	1.81057	0.00165
6	2.426			0.0619	3326.52539	790.30237	1.52873
Totals	:				2.17601e5	1.97748e5	

Instrument 1 7/6/2018 9:51:41 PM Zach Taylor

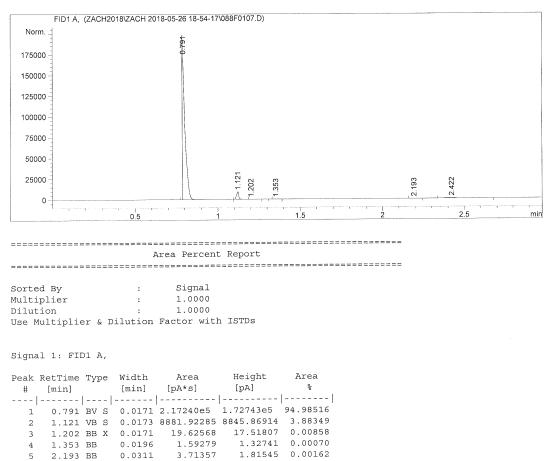
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 18-54-17\088F0106.D Sample Name: 4-methoxy Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 26-May-18, 19:15:21 Inj: 6 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 18-54-17\Z1.M Acq. Method : 5/26/2018 5:27:01 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 9:51:43 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 18-54-17\088F0107.D Sample Name: 4-methoxy

Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	26-May-18, 19:19:22	Inj : 7
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-26 18-54-17\Z1.M
Last changed	:	5/26/2018 5:27:01 PM k	oy Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M
Last changed	:	7/6/2018 9:23:05 PM by	/ Zach Taylor
		(modified after loadin	ıg)
Method Info	:	Alditol lab.	



62 Totals:

2.422 BB

2.28710e5 1.82227e5

0.0620 2562.56494 617.80835 1.12044

Instrument 1 7/6/2018 9:51:45 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 18-54-17\088F0108.D
Sample Name: 4-methoxy
   Acq. Operator : Zach Taylor
                                               Seq. Line : 1
                                                 Location : Vial 88
   Acq. Instrument : Instrument 1
   Injection Date : 26-May-18, 19:23:22
                                                     Inj :
                                                            8
                                               Inj Volume : 1 µl
                  : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 18-54-17\Z1.M
   Acq. Method
                 : 5/26/2018 5:27:01 PM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
   Last changed
                : 7/6/2018 9:23:05 PM by Zach Taylor
                    (modified after loading)
                  : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-26 18-54-17\088F0108.D)
      Norm.
                               788
     200000
     175000
     150000
     125000
     100000
      75000
      50000
      25000
                                          .203
         0
                                                                            2.5
                                                                                        min
                       0.5
    Area Percent Report
    Sorted By
                              Signal
                        :
                              1.0000
   Multiplier
                       :
                              1.0000
   Dilution
                        .
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
    Peak RetTime Type Width
                                       Height
                                                  Area
                              Area
                     [min]
                            [pA*s]
                                        [pA]
                                                  웅
     #
        [min]
         ____
      0.788 BB S 0.0151 2.04346e5 1.99726e5 95.08171
      1
         1.122 BB S 0.0167 8377.16113 8223.25293 3.89786
      2

        1.203
        BB T
        0.0148
        13.13766
        15.31000
        0.00611

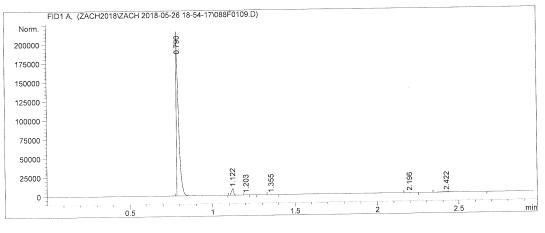
        1.355
        BB
        0.0194
        1.67783
        1.33714
        0.00078

        2.197
        BB
        0.0319
        3.76058
        1.83944
        0.00175

      З
                             1.67783
3.76058
      4
          2.197 BB
                     0.0319
      5
      6
          2.425 BB
                   0.0610 2174.49097 526.44305 1.01178
                           2.14917e5 2.08494e5
    Totals :
    _____
                                                                          Page 1 of 1
Instrument 1 7/6/2018 9:51:46 PM Zach Taylor
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 18-54-17\088F0109.D Sample Name: 4-methoxy

Acq. Operator :	Zach Taylor	Seq. Line : 1
Acq. Instrument :	Instrument 1	Location : Vial 88
Injection Date :	26-May-18, 19:27:23	Inj: 9
		Inj Volume : 1 µl
Acq. Method :	C:\Chem32\1\DATA\ZACH2018	8\ZACH 2018-05-26 18-54-17\Z1.M
	5/26/2018 5:27:01 PM by 2	
Analysis Method :	C:\CHEM32\1\METHODS\Z4.M	
Last changed :	7/6/2018 9:23:05 PM by Za	ach Taylor
-	(modified after loading)	
Method Info :	Alditol lab.	



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

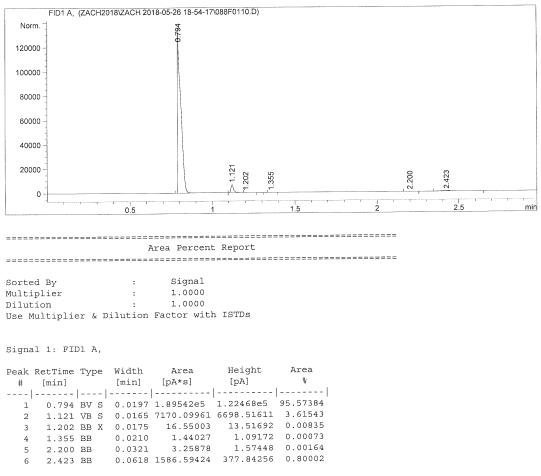
Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.790	BB S	0.0158	1.98489e5	1.83894e5	95.16814
2	1.122	BB S	0.0160	8111.92334	8470.21680	3.88937
3	1.203	вв х	0.0134	13.40573	15.26388	0.00643
4	1.355	BB	0.0186	1.50216	1.26736	0.00072
5	2.196	BB	0.0318	3.78829	1.79866	0.00182
6	2.422	BB	0.0631	1947.02136	451.30478	0.93353
					1 00001405	

Totals : 2.08566e5 1.92834e5

Instrument 1 7/6/2018 9:51:48 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 18-54-17\088F0110.D Sample Name: 4-methoxy

Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 88				
Injection Date	:	26-May-18, 19:31:23	Inj : 10				
			Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-26 18-54-17\Z1.M				
Last changed	:	5/26/2018 5:27:01 PM by	Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M				
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor				
		(modified after loading	1)				
Method Info	:	Alditol lab.					



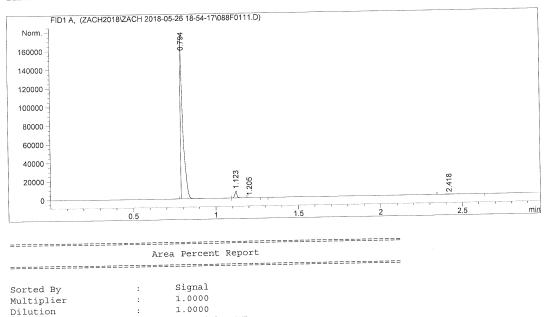
Totals :

1.98320e5 1.29560e5

Instrument 1 7/6/2018 9:51:50 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 18-54-17\088F0111.D Sample Name: 4-methoxy

pie Name: 4-metho	лхү						
Acq. Operator	: Zach Taylor	Seq. Line : 1					
Acq. Instrument		Location : Vial 88					
	: 26-May-18, 19:35:24	Inj : 11					
		Inj Volume : 1 µl					
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\Z	ACH 2018-05-26 18-54-17\Z1.M					
Last changed	: 5/26/2018 5:27:01 PM by Zac	h Taylor					
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M						
Last changed	: 7/6/2018 9:23:05 PM by Zach	Taylor					
	(modified after loading)						
Method Info	: Alditol lab.						



Signal 1: FID1 A,

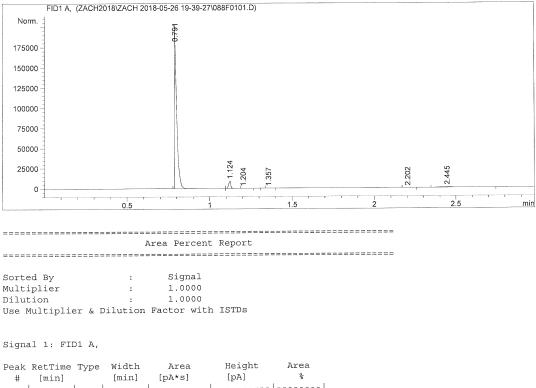
2 1.12	[min] - 4 BV S 0.015	Area [pA*s] -		Area % 95.80149 3.58139 0.00753	
4 2.41		1 1137.97986	272.89203	0.60959	
Totals :		1.86680e5	1.65223e5		
		*** End of	======================================	================	

Instrument 1 7/6/2018 9:51:56 PM Zach Taylor

Use Multiplier & Dilution Factor with ISTDs

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\088F0101.D Sample Name: 4-methoxy

==================			
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	26-May-18, 19:40:27	Inj: 1
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-05-26 19-39-27\Z1.M
Last changed	:	5/26/2018 5:27:01 PM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z	24.M
Last changed	:	7/6/2018 9:23:05 PM b	by Zach Taylor
		(modified after loadi	.ng)
Method Info	:	Alditol lab.	



# 1	[min]			[min]	[pA*s]	[pA]	00	
			- -					
1	0.791	ВV	s	0.0152	1.84145e5	1.79565e5	94.02520	
2	1.124	VB	S	0.0146	8245.04785	9089.99512	4.20996	
3	1.204	BB	Х	0.0162	17.98126	17.25697	0.00918	
4	1.357	BB		0.0199	1.40244	1.21551	0.00072	
5	2.202	BB		0.0296	3.42527	1.72183	0.00175	
6	2.445	BB		0.0646	3433.55200	749.51050	1.75319	
Totals	:				1.95846e5	1.89425e5		

d15 : 1.

Instrument 1 7/6/2018 9:52:19 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\088F0102.D
Sample Name: 4-methoxy
   Acq. Operator : Zach Taylor
                                         Seq. Line :
                                                  1
   Acq. Instrument : Instrument 1
                                         Location : Vial 88
                                             Inj: 2
   Injection Date : 26-May-18, 19:44:29
                                        Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\Z1.M
   Acq. Method
               : 5/26/2018 5:27:01 PM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                 (modified after loading)
   Method Info
               : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-26 19-39-27\088F0102.D)
     Norm.
                          640
    200000
    175000
    150000
    125000
    100000
     75000
     50000
                                  1.125
     25000
                                   207
                                       359
                                                          204
       0
                                                                   ------
           2.5
                                                                          mir
                   0.5
                                          1.5
   Area Percent Report
   _____
   Sorted By
                    .
                         Signal
   Multiplier
                         1.0000
                    :
                         1.0000
   Dilution
                    :
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
                                 Height
                                          Area
   Peak RetTime Type Width
                         Area
                        [pA*s]
                                          왕
                                 [pA]
     #
       [min]
                  [min]
    -----
        0.791 BV S 0.0150 2.01921e5 2.00463e5 94.28429
     1
        1.125 VB S 0.0156 8610.70117 9302.03906 4.02065
      2
        1.207 BB X 0.0169 19.25742 17.45698 0.00899
      3
                                 1.35574 0.00081
1.83386 0.00181
        1.359 BB 0.0197
                         1.73713
      4
                          3.87115
        2.204 BB
                 0.0318
      5
                0.0662 3605.29565 787.50037 1.68345
      6
        2.449 BB
   Totals :
                       2.14162e5 2.10573e5
   Page 1 of 1
Instrument 1 7/6/2018 9:52:21 PM Zach Taylor
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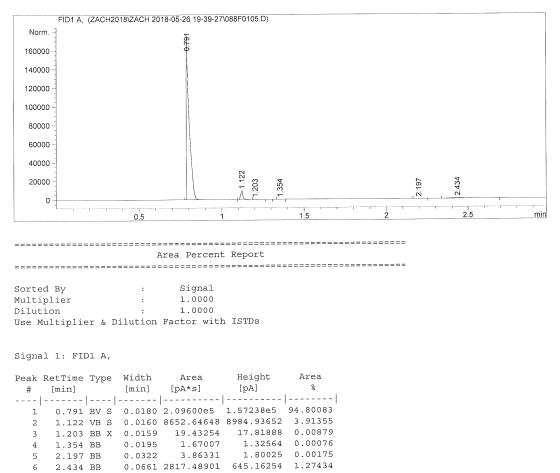
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Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\088F0103.D
Sample Name: 4-methoxy
   .
______
                                         Seq. Line : 1
   Acq. Operator : Zach Taylor
                                          Location : Vial 88
   Acq. Instrument : Instrument 1
                                              Inj: 3
   Injection Date : 26-May-18, 19:48:30
                                         Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\Z1.M
   Acq. Method
               : 5/26/2018 5:27:01 PM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                 (modified after loading)
               : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-26 19-39-27\088F0103.D)
     Norm.
     175000
     150000
     125000
     100000
     75000
     50000 -
                                                                 443
     25000
                                    207
                                        359
        0
                                                                            min
                                                                  2.5
                                           1.5
                    0.5
    Area Percent Report
    Signal
    Sorted By
                     :
                          1.0000
    Multiplier
                     :
                          1.0000
    Dilution
                     .
   Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                           Area
                                   Height
    Peak RetTime Type Width
                          Area
                                   [pA]
                                           %
                  [min]
                         [pA*s]
     #
        [min]
                                 -----
    ____ | _____ | ____ | ____ | _____ | _____ |
         0.793 BV S 0.0169 2.15695e5 1.73821e5 94.95937
      1
         1.126 VB S 0.0141 8336.75488 8958.51465 3.67024
      2
         1.207 BB X 0.0160 18.37430 16.80696 0.00809
      3
                          1.28591
                                  1.13975 0.00057
         1.359 BB
                   0.0180
      4
                                   1.54912 0.00139
         2.203 BB
                          3.15490
                   0.0302
      5
                  0.0681 3089.95801 691.46564 1.36035
         2.443 BB
      6
                        2.27145e5 1.83491e5
    Totals :
    Page 1 of 1
 Instrument 1 7/6/2018 9:52:22 PM Zach Taylor
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\088F0104.D Sample Name: 4-methoxy _____ Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 4 Injection Date : 26-May-18, 19:52:32 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\Z1.M Acq. Method : 5/26/2018 5:27:01 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-26 19-39-27\088F0104.D) Norm. 160000 140000 120000 100000 80000 60000 40000 1.122 530 20000 .203 355 0 2.5 mir 15 0.5 _____ Area Percent Report Signal Sorted By : 1.0000 Multiplier : 1.0000 Dilution . Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area [pA] 8 [min] [pA*s] # [min] -----|-----|-----|-----|------| 0.793 BV S 0.0166 1.84915e5 1.52187e5 95.02080 1 1.122 VB S 0.0139 7173.86572 7811.51953 3.68637 2 1.203 BB X 0.0151 15.58798 15.34455 0.00801 1.355 BB 0.0201 1.23281 1.05291 0.00063 3 1.355 BB 0.0201 4 2.430 BB 0.0649 2499.09180 567.80292 1.28419 5 1.94605e5 1.60582e5 Totals : *** End of Report ***

Instrument 1 7/6/2018 9:52:24 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\088F0105.D Sample Name: 4-methoxy

Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 88				
Injection Date	:	26-May-18, 19:56:33	Inj: 5				
			Inj Volume : l µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2)18\ZACH 2018-05-26 19-39-27\Z1.M				
Last changed	:	5/26/2018 5:27:01 PM by	/ Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	M				
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor				
		(modified after loading	1)				
Method Info	:	Alditol lab.					



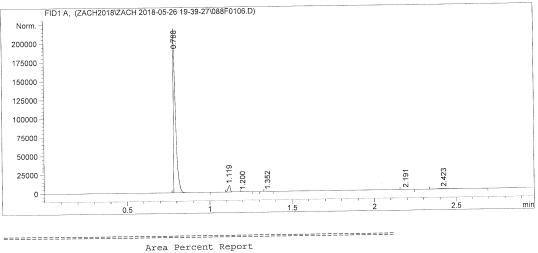
2.21095e5 1.66889e5

Instrument 1 7/6/2018 9:52:26 PM Zach Taylor

Totals :

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\088F0106.D Sample Name: 4-methoxy

ipre Name: 4-mechoxy							
Acq. Operator	:	Zach Taylor	Seq. Line				
Acq. Instrument	:	Instrument 1	Location				
Injection Date	:	26-May-18, 20:00:36	Inj	:	6		
1		II	nj Volume				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2	2018-05-20	5	19-39-27\Z1.M	Ĺ	
Last changed		5/26/2018 5:27:01 PM by Zach Tay	ylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M					
Last changed	:	7/6/2018 9:23:05 PM by Zach Tay	lor				
		(modified after loading)					
Method Info	:	Alditol lab.					



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

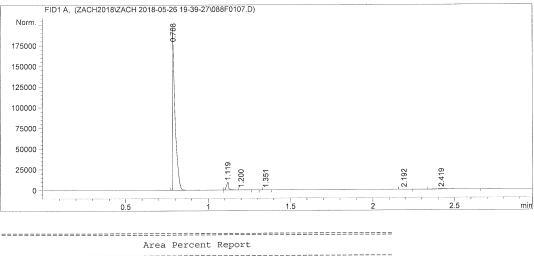
Signal 1: FID1 A,

Peak Re	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.788	BB S	0.0146	1.97905e5	1.89245e5	94.94076
2	1.119	BB S	0.0158	8127.30420	8632.01660	3.89891
3	1.200	BB T	0.0121	11.19129	14.74382	0.00537
4	1.352		0.0196	1.57205	1.23857	0.00075
5	2.191		0.0312	3.52608	1.71216	0.00169
6	2.423		0.0646	2402.42554	541.45996	1.15251
0	2.425	20	0.0010			
Totals	:			2.08451e5	1.98436e5	

Instrument 1 7/6/2018 9:52:27 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\088F0107.D Sample Name: 4-methoxy

Acq. Operator	:	Zach Taylor	Seq. Line	:	1	
Acq. Instrument	:	Instrument 1	Location	:	Vial 88	
Injection Date	:	26-May-18, 20:04:36	Inj	:	7	
			Inj Volume	:	1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-05-26	1	L9-39-27\Z1.M	
Last changed	:	5/26/2018 5:27:01 PM	by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\2	14.M			
Last changed	:	7/6/2018 9:23:05 PM k	y Zach Taylor			
		(modified after loadi	.ng)			
Method Info	:	Alditol lab.				



Sorted By Signal :

1.0000 Multiplier : 1.0000 Dilution • Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Тур	pe	Width [min]	Area [pA*s]	Height [pA]	Area ۶
		·					
1	0.788	вv	S	0.0165	2.13806e5	1.77186e5	95.41587
2	1.119	VB	S	0.0144	8430.61230	8793.41309	3.76236
3	1.200	BB	Х	0.0150	17.33854	17.15861	0.00774
4	1.351	BB		0.0191	1.44298	1.17903	0.00064
5	2.192	BB		0.0302	3.30375	1.62198	0.00147
6	2.419	BB		0.0661	1819.29956	410.27646	0.81191

Totals :

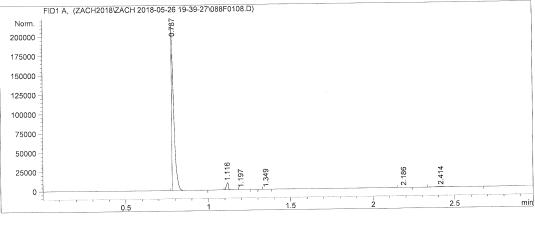
2.24078e5 1.86410e5

Instrument 1 7/6/2018 9:52:29 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\088F0108.D Sample Name: 4-methoxy

Acq. Operator	:	Zach Taylor Seq. Line : 1			
Acg. Instrument					
		26-May-18, 20:08:38 Inj : 8			
		Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\Z1.M			
Last changed	:	5/26/2018 5:27:01 PM by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M			
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor			
2		(modified after loading)			
Method Info	:	Alditol lab.			

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Area Percent Report

-

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & DilutionFactor with ISTDs

Signal 1: FID1 A,

Peak Re # [tTime [min]	Тур	е	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.787	BB	s	0.0143	1.91239e5	2.01304e5	95.08916
2	1.116	BB	S	0.0144	7998.08691	8962.70996	3.97687
_	1.197	BB		0.0134	12.64204	15.69847	0.00629
4		BB		0.0190	1.54904	1.27308	0.00077
5	2.186	BB		0.0306	3.57455	1.72310	0.00178
6				0.0661	1860.58911	419.49655	0.92514
Totals	:				2.01115e5	2.10705e5	

Instrument 1 7/6/2018 9:52:31 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\088F0109.D Sample Name: 4-methoxy Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 26-May-18, 20:12:38 Inj: 9 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\Z1.M Acq. Method : 5/26/2018 5:27:01 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info ______ FID1 A, (ZACH2018\ZACH 2018-05-26 19-39-27\088F0109.D) Norm 3.786 200000 175000 150000 125000 100000 75000 50000 25000 198 350 0 2.5 min 0.5 Area Percent Report Signal Sorted By 1.0000 Multiplier : Dilution . 1.0000 Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area [min] [pA*s] [pA] 8 # [min] 0.786 BV S 0.0168 2.27795e5 1.94992e5 95.60950 1.117 VB S 0.0164 8782.36426 8805.74707 3.68610 1 2
 1.198
 BB X
 0.0167
 19.16387
 17.54727
 0.00804

 1.350
 BB
 0.0200
 1.73053
 1.32795
 0.00073

 2.189
 BB
 0.0317
 3.46479
 1.64810
 0.00145
 3 4 5 0.0684 1653.90503 373.86716 0.69417 6 2.415 BB 2.38256e5 2.04192e5 Totals : Page 1 of 1 Instrument 1 7/6/2018 9:52:32 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\088F0110.D
Sample Name: 4-methoxy
   Seq. Line : 1
   Acq. Operator : Zach Taylor
                                                 Location : Vial 88
   Acq. Instrument : Instrument 1
                                                      Inj : 10
   Injection Date : 26-May-18, 20:16:40
                                               Inj Volume : 1 µl
                  : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\Z1.M
   Acq. Method
                  : 5/26/2018 5:27:01 PM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
                 : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                    (modified after loading)
                  : Alditol lab.
   Method Info
    FID1 A, (ZACH2018\ZACH 2018-05-26 19-39-27\088F0110.D)
      Norm.
                               786
     200000
     175000
     150000
     125000
     100000
      75000
      50000
                                                                           2.416
                                                                     89
      25000
                                              349
                                                                     21
         0
                                                                             2.5
                                                                                        min
                                                  1.5
                       0.5
    Area Percent Report
    Signal
    Sorted By
                        :
                               1.0000
    Multiplier
                        :
                              1.0000
    Dilution
                        :
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                        Height
                                                  Area
    Peak RetTime Type Width
                              Area
                                        [pA]
                                                   જે
                      [min]
                             [pA*s]
      #
         [min]
     ----|
          0.786 BB S 0.0151 1.93994e5 1.89476e5 95.16493
       1
          1.116 BB S 0.0154 8173.48682 8975.82324 4.00956
       2

        1.197
        BB
        T
        0.0114
        10.75666
        15.34171
        0.00528

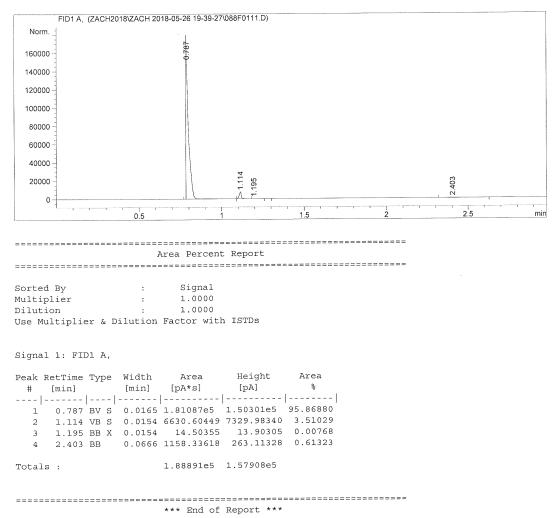
        1.349
        BB
        0.0191
        1.51098
        1.23638
        0.00074

        2.189
        BB
        0.0314
        3.59255
        1.72975
        0.00176

       3
       4
          2.189 BB
       5
                    0.0687 1666.94788 363.42853 0.81773
       6
          2.416 BB
                            2.03850e5 1.98834e5
    Totals :
     Page 1 of 1
 Instrument 1 7/6/2018 9:52:34 PM Zach Taylor
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\088F0111.D Sample Name: 4-methoxy

sie name, i meenoxy							
Acq. Operator	Zach Taylor Seq. Line : 1						
Acq. Instrument	Instrument 1 Location : Vial 88						
Injection Date	26-May-18, 20:20:40 Inj : 11						
	Inj Volume : 1 µl						
Acq. Method	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 19-39-27\Z1.	М					
Last changed	5/26/2018 5:27:01 PM by Zach Taylor						
Analysis Method	C:\CHEM32\1\METHODS\Z4.M						
Last changed	7/6/2018 9:23:05 PM by Zach Taylor						
	(modified after loading)						
Method Info	Alditol lab.						



Instrument 1 7/6/2018 9:52:36 PM Zach Taylor

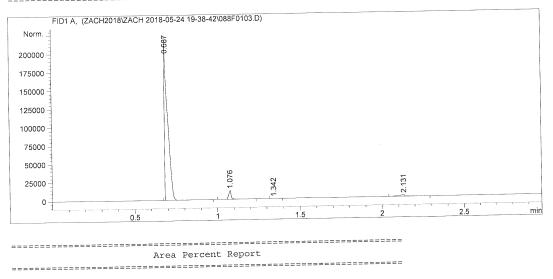
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\088F0101.D Sample Name: 3-methoxy Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 24-May-18, 19:39:45 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\Z1.M Acq. Method : 5/24/2018 7:31:18 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-24 19-38-42\088F0101.D) Norm. 7-89-6 175000 150000 125000 100000 75000 50000 .075 50 487 25000 340 à 0 2.5 min 0.5 1.5 _____ Area Percent Report Signal Sorted By . 1.0000 Multiplier : 1.0000 Dilution . Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area [pA] જ [min] [pA*s] [min] # 1 0.687 BB S 0.0197 2.83252e5 1.82415e5 93.42103 3.69643 1.075 BB S 0.0155 1.12075e4 1.13842e4 2 1.340 BB 0.0198 2.58916 2.00734 0.00085 3 0.0424 8732.55566 2707.24683 2.88014 2.150 BB 4 1.86705 0.00155 2.487 BB 0.0390 4.71096 5 3.03199e5 1.96511e5 Totals : *** End of Report *** Page 1 of 1 Instrument 1 7/6/2018 9:53:21 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\088F0102.D Sample Name: 3-methoxy Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Injection Date : 24-May-18, 19:43:45 Inj: 2 Inj Volume : 1 µl Acq. Method : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\Z1.M : 5/24/2018 7:31:18 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-24 19-38-42\088F0102.D) Norm. 0.687 200000 175000 150000 125000 100000 75000 50000 .076 25000 2.139 341 Λ 0 2.5 0.5 min Area Percent Report Sorted By Signal : Multiplier : 1.0000 Dilution 1.0000 . Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Height Area Area # [min] [min] [pA*s] [pA] \$ 1 0.687 BB S 0.0194 2.89401e5 1.89801e5 94.02755 2 1.076 BB S 0.0160 1.18070e4 1.14912e4 3.83615
 1.341
 BB
 0.0194
 2.66551
 2.12450
 0.00087

 2.139
 BB
 0.0369
 6572.50732
 2327.57544
 2.13544
 2.12450 0.00087 3 4 Totals : 3.07783e5 2.03622e5 *** End of Report *** Page 1 of 1 Instrument 1 7/6/2018 9:53:23 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\088F0103.D Sample Name: 3-methoxy

ple Name: 3-metho	oxy						
Acq. Operator	: Zach Taylor Seq. Line :						
Acq. Instrument	: Instrument 1 Location :						
Injection Date	: 24-May-18, 19:47:45 Inj :						
2	Inj Volume :						
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 :	19-38-42\Z1.M					
Last changed	: 5/24/2018 7:31:18 PM by Zach Taylor						
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M						
Last changed	: 7/6/2018 9:23:05 PM by Zach Taylor						
	(modified after loading)						
Method Info	: Alditol lab.						



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

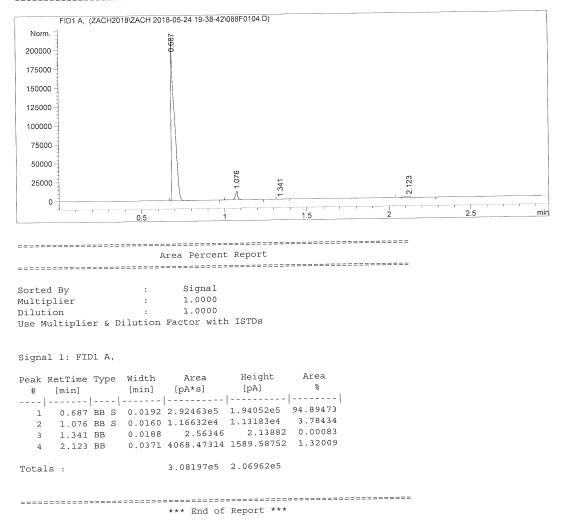
Peak Ret # [n 	Time nin]	Туре 	Width [min]	Area [pA*s]	Height [pA]	Area %	
1 (0.687	BB S	0.0191	2.94903e5	1.96890e5	94.47757	
2	1.076	BB S	0.0171	1.21394e4	1.15417e4	3.88909	
	1.342		0.0190	2.70018	2.21777	0.00087	
-				5095.61865	1943.24377	1.63248	
4 2	2.131	вв	0.0550	5055.01005	191012111		
Totals	:			3.12140e5	2.10377e5		

*** End of Report ***

Instrument 1 7/6/2018 9:53:24 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\088F0104.D Sample Name: 3-methoxy

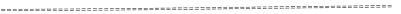
Acq. Operator Acq. Instrument		Seq. Line : 1 Location : Vial 88 Inj : 4
Injection bace	. 21 may 10, 11	Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-24 19-38-42\Z1.M
Last changed	: 5/24/2018 7:31:18 PM by	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	
Last changed	: 7/6/2018 9:23:05 PM by Z	ach Taylor
5	(modified after loading)	
Method Info	: Alditol lab.	

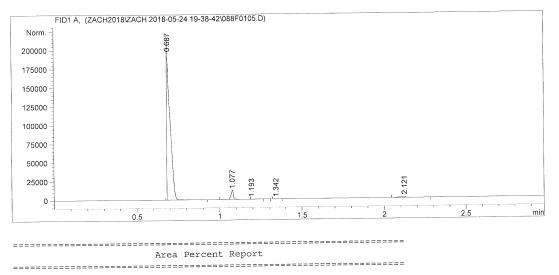


Instrument 1 7/6/2018 9:53:26 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\088F0105.D Sample Name: 3-methoxy

Acq. Operator	: Zach Taylor	Seq. Line : 1				
Acq. Instrument	: Instrument 1	Location : Vial 88				
Injection Date	: 24-May-18, 19:55:47	Inj: 5				
2	-	Inj Volume : 1 µl				
Acq. Method	: C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-24 19-38-42\Z1.M				
	: 5/24/2018 7:31:18 PM by					
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	[
Last changed	: 7/6/2018 9:23:05 PM by Z	ach Taylor				
	(modified after loading)					
Method Info	: Alditol lab.					





Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak RetTime	Type	Width	Area	Height	Area
# [min]		[min]	[pA*s]	[pA]	%
1 0.687 2 1.077 3 1.193 4 1.342 5 2.121	BB S BB T BB	0.0170 0.0165 0.0209	2.87785e5 1.20226e4 3.82630 2.97212 3632.46191	1.94973e5 1.15223e4 3.87197 2.26190 1431.65186	94.83867 3.96202 0.00126 0.00098 1.19707

Totals :

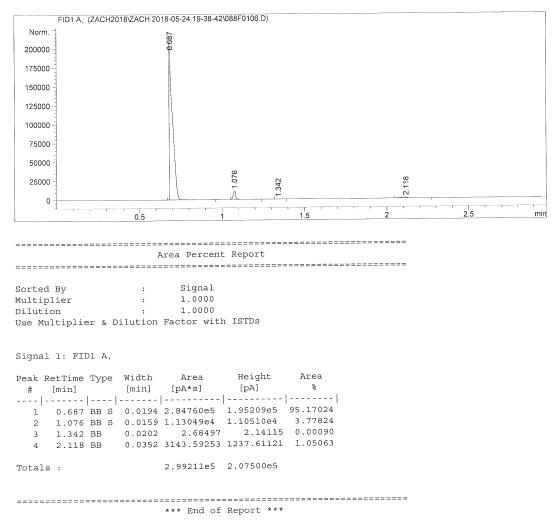
3.03447e5 2.07933e5

*** End of Report ***

Instrument 1 7/6/2018 9:53:28 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\088F0106.D Sample Name: 3-methoxy

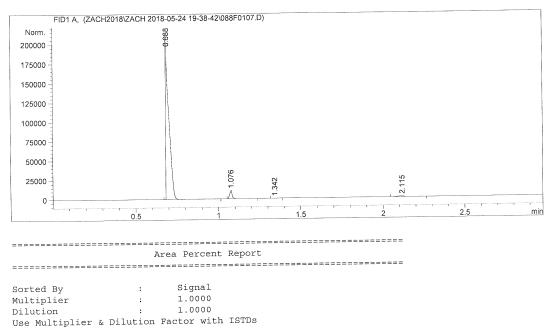
Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acg. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	24-May-18, 19:59:49	Inj : 6			
-		-	Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-24 19-38-42\Z1.M			
Last changed	:	5/24/2018 7:31:18 PM	by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\2	4.M			
Last changed	:	7/6/2018 9:23:05 PM k	y Zach Taylor			
		(modified after loadi	ng)			
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 9:53:30 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\088F0107.D Sample Name: 3-methoxy

Acq. Operator	: Zach Taylor	Seq. Line : 1				
Acq. Instrument	: Instrument 1	Location : Vial 88				
	: 24-May-18, 20:03:49	Inj : 7				
5	-	Inj Volume : l µl				
Acq. Method	: C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-24 19-38-42\Z1.M				
	: 5/24/2018 7:31:18 PM by					
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M					
Last changed	: 7/6/2018 9:23:05 PM by Z	ach Taylor				
	(modified after loading)					
Method Info	: Alditol lab.					



Signal 1: FID1 A,

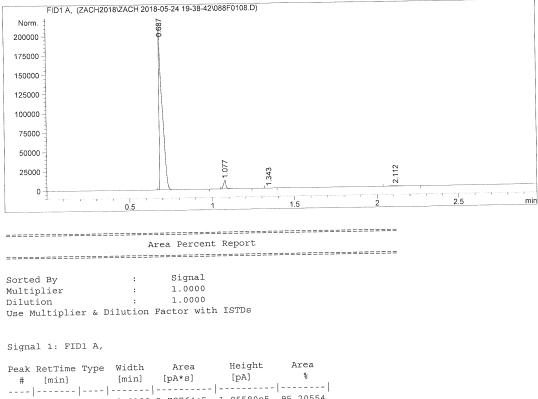
Height Area Peak RetTime Type Width Area [pA] olo [min] [pA*s] # [min] # [min] [min] [pA*s] [pA] * 1 0.688 BB S 0.0195 2.84371e5 1.94490e5 95.30082 2 1.076 BB S 0.0162 1.11991e4 1.07341e4 3.75315
 1.342
 BB
 0.0205
 2.61689
 2.05357
 0.00088

 2.115
 BB
 0.0375
 2820.26611
 1115.17896
 0.94515
 3 4 2.98393e5 2.06342e5 Totals : *** End of Report ***

Instrument 1 7/6/2018 9:53:31 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\088F0108.D Sample Name: 3-methoxy

npie Name: 3-mecno	оху	
Acq. Operator Acq. Instrument Injection Date		Seq. Line : 1 Location : Vial 88 Inj : 8 Inj Volume : 1 µl
Acq. Method Last changed Analysis Method Last changed	: C:\Chem32\1\DATA\ZACH2018\2 : 5/24/2018 7:31:18 PM by Zac : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach (modified after loading)	ZACH 2018-05-24 19-38-42\Z1.M ch Taylor
Method Info	: Alditol lab.	



 # [mini]
 [mini]
 [mini]
 [mini]

 ---- ----- ----- ----- |------|

 1
 0.687 BB S
 0.0190 2.78764e5
 1.95580e5
 95.20554

 2
 1.077 BB S
 0.0172 1.16601e4
 1.09289e4
 3.98226

 3
 1.343 BB
 0.0198
 2.75179
 2.14456
 0.00094

 4
 2.112 BB
 0.0407
 2375.40430
 940.54456
 0.81127

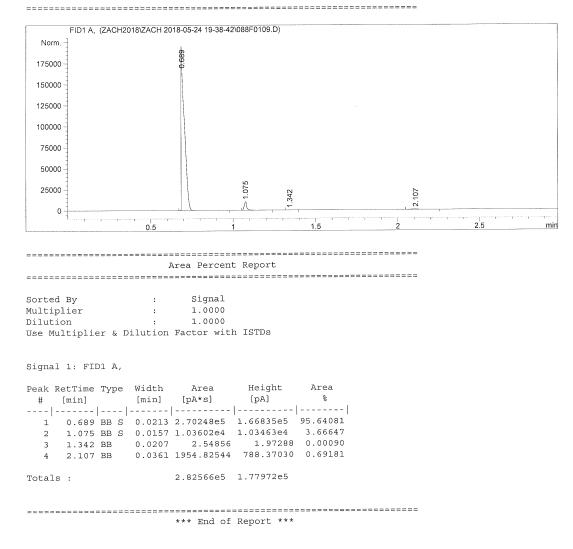
 Totals :
 2.92802e5
 2.07452e5

*** End of Report ***

Instrument 1 7/6/2018 9:53:33 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\088F0109.D Sample Name: 3-methoxy Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 24-May-18, 20:11:54 Inj: 9 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\Z1.M Acq. Method Last changed : 5/24/2018 7:31:18 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed

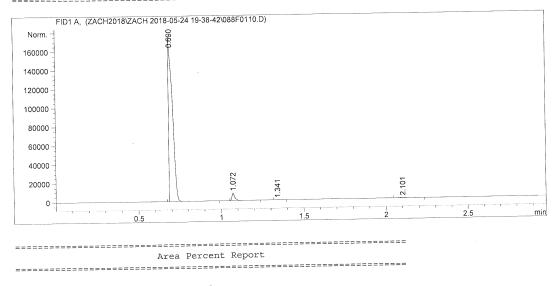
(modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 9:53:35 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\088F0110.D Sample Name: 3-methoxy

ipie Name: 3-mecho	бхү	
		=======
Acq. Operator Acq. Instrument Injection Date		Vial 88 10
	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24	19-38-42\ZI.M
	: 5/24/2018 7:31:18 PM by Zach Taylor	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	
Last changed	: 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)	
Method Info	: Alditol lab.	



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

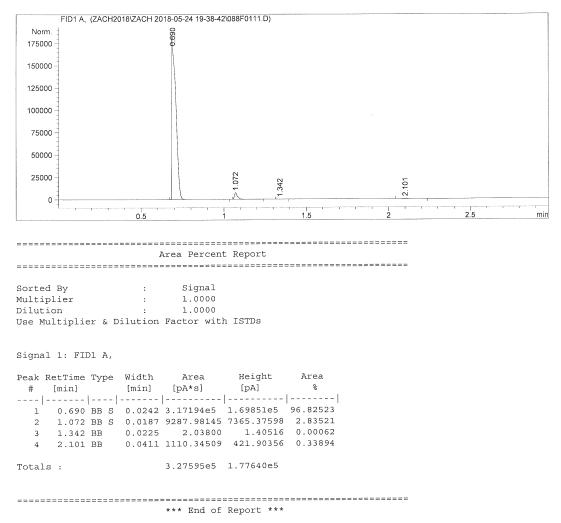
Signal 1: FID1 A,

Peak Re # [tTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %	1
2 3	0.690 1.072 1.341 2.101	BB BB		0.0175	2.87705e5 9123.34180 2.25085 1257.15747	1.61452e5 7877.43262 1.61623 498.63245	96.51689 3.06062 0.00076 0.42174	
4 Totals				0.0000		1.69830e5		
======		====	. = 1		======================================	======================================		

Instrument 1 7/6/2018 9:53:36 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\088F0111.D Sample Name: 3-methoxy

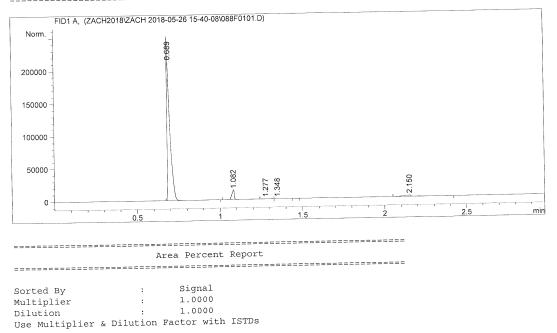
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	24-May-18, 20:19:55	Inj : 11
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018	3\ZACH 2018-05-24 19-38-42\Z1.M
Last changed	:	5/24/2018 7:31:18 PM by 2	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Za	ach Taylor
		(modified after loading)	
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 9:53:39 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 15-40-08\088F0101.D Sample Name: 3-methoxy

Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument		Location : Vial 88
	: 26-May-18, 15:41:10	Inj: 1
injeetion bace		Inj Volume : 1 µl
Acq. Method Last changed Analysis Method Last changed	: C:\Chem32\1\DATA\ZACH2018\ZA : 5/24/2018 7:31:18 PM by Zach : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach (modified after loading)	n Taylor
Method Info	: Alditol lab.	



Signal 1: FID1 A,

Peak RetTime # [min]	е Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
	-				
1 0.68	∋'BB S'	0.0174	2.73314e5	2.12229e5	92.98336
		0.0178	1.44417e4	1.37827e4	4.91318
	7 PV T	0.0246	2.84294	1.61007	0.00097
-	8 PB T	0.0194	2.40200	2.02445	0.00082
5 2.15			6177.66113	1929.40479	2.10168
5 2.13	0 00	0.0111			
				0.0001525	

Totals :

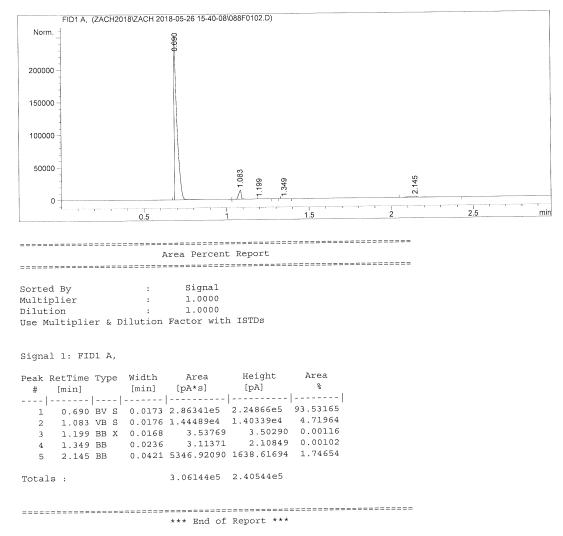
2.93939e5 2.27945e5

*** End of Report ***

Instrument 1 7/6/2018 9:54:16 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 15-40-08\088F0102.D Sample Name: 3-methoxy

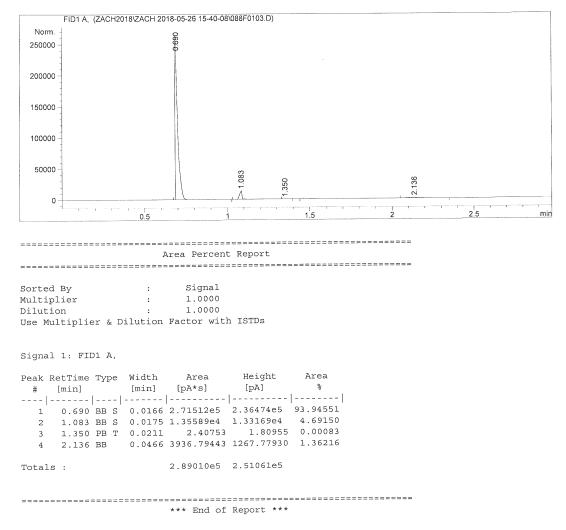
Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument	: Instrument 1	Location : Vial 88
Injection Date	: 26-May-18, 15:45:10	Inj: 2
	-	Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-26 15-40-08\Z1.M
	: 5/24/2018 7:31:18 PM by	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	
	: 7/6/2018 9:23:05 PM by Z	
	(modified after loading)	
Method Info	: Alditol lab.	



Instrument 1 7/6/2018 9:54:18 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 15-40-08\088F0103.D Sample Name: 3-methoxy

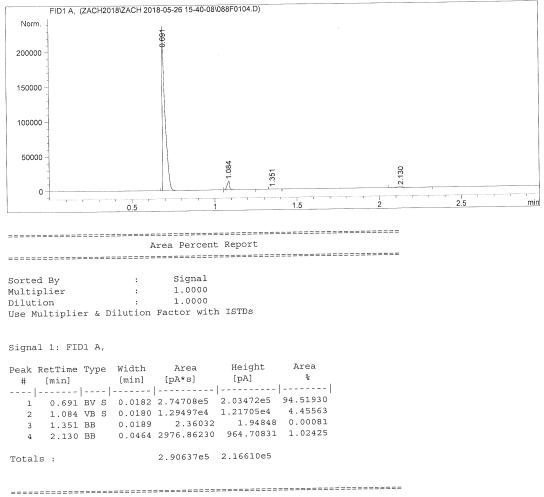
	= =			
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	26-May-18, 15:49:11	Inj: 3	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH	H2018\ZACH 2018-05-26 15-40-08\Z1.M	1
Last changed	:	5/24/2018 7:31:18 PM	by Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z	Z4.M	
Last changed	:	7/6/2018 9:23:05 PM b	by Zach Taylor	
		(modified after loadi	ing)	
Method Info	:	Alditol lab.		



Instrument 1 7/6/2018 9:54:20 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 15-40-08\088F0104.D Sample Name: 3-methoxy

ipie Name: 3-metric	ху	
Acq. Operator	: Zach Taylor Seq. Line : 1	
Acq. Instrument	: Instrument 1 Location : Vial	88
Injection Date	: 26-May-18, 15:53:11 Inj: 4	
2	Inj Volume : 1 µl	
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 15-40	-08\Z1.M
Last changed	: 5/24/2018 7:31:18 PM by Zach Taylor	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	
Last changed	: 7/6/2018 9:23:05 PM by Zach Taylor	
	(modified after loading)	
Method Info	: Alditol lab.	

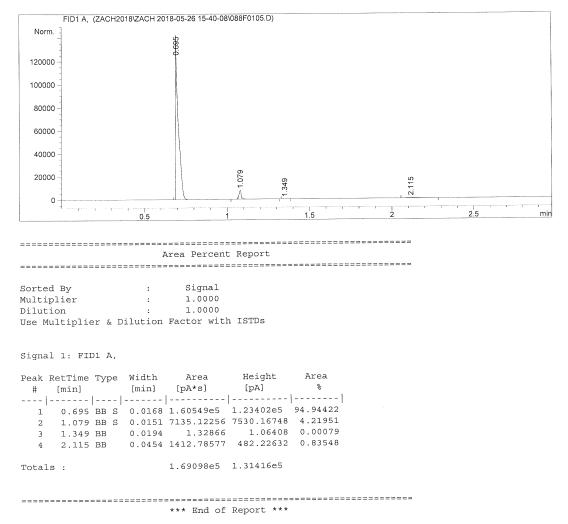


*** End of Report ***

Instrument 1 7/6/2018 9:54:21 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 15-40-08\088F0105.D Sample Name: 3-methoxy

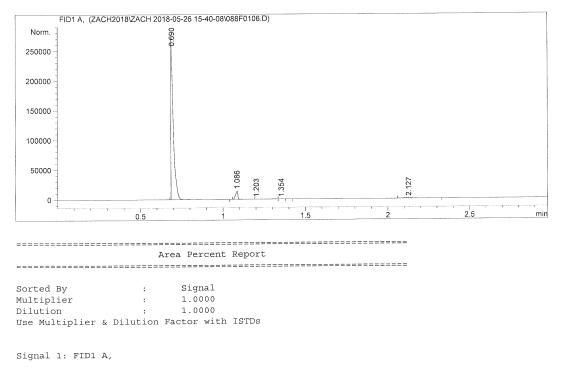
=======================================	-			-	
Acq. Operator	:	Zach Taylor	Seq. Line	:	1
Acq. Instrument	:	Instrument 1	Location	:	Vial 88
Injection Date	:	26-May-18, 15:57:12	Inj	:	5
			Inj Volume		
Acq. Method	:	C:\Chem32\1\DATA\ZACH	H2018\ZACH 2018-05-26	5 3	15-40-08\Z1.M
Last changed	:	5/24/2018 7:31:18 PM	by Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\2	24.M		
Last changed	:	7/6/2018 9:23:05 PM k	oy Zach Taylor		
_		(modified after load:	ing)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 9:54:23 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 15-40-08\088F0106.D Sample Name: 3-methoxy

Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	26-May-18, 16:01:12	Inj: 6
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-26 15-40-08\Z1.M
Last changed	:	5/24/2018 7:31:18 PM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
		(modified after loading)
Method Info	:	Alditol lab.	



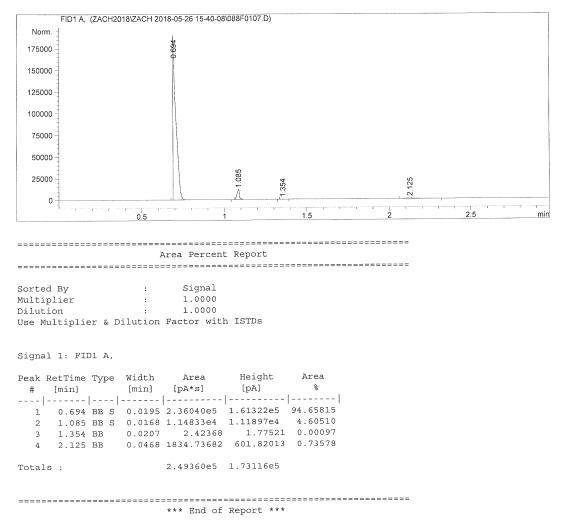
Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %	
1	0.690	BB S	0.0156	2.76921e5	2.60018e5	94.52336	
2	1.086	BB S	0.0173	1.37430e4	1.36539e4	4.69099	
3	1.203	BV T	0.0645	90.36804	23.35334	0.03085	
4	1,354	PB T	0.0204	2.41486	1.90153	0.00082	
5	2.127	BB	0.0466	2208.88525	712.36517	0.75398	
Total	.s :			2.92965e5	2.74410e5		
====		====		============			

*** End of Report ***

Instrument 1 7/6/2018 9:54:25 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 15-40-08\088F0107.D Sample Name: 3-methoxy

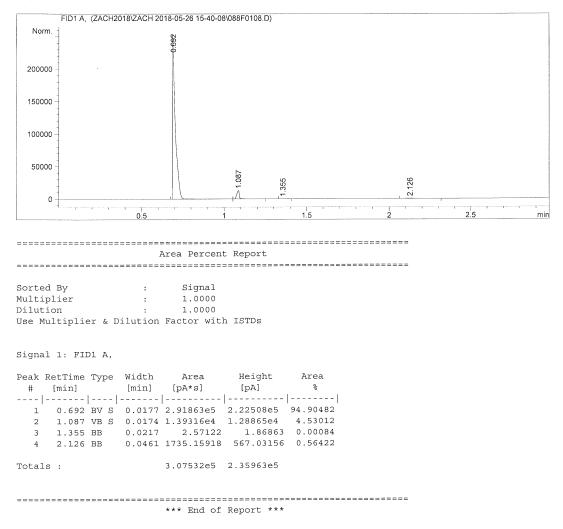
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	26-May-18, 16:05:14	Inj: 7
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-26 15-40-08\Z1.M
Last changed	:	5/24/2018 7:31:18 PM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4 . M
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor
		(modified after loadi	ng)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 9:54:27 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 15-40-08\088F0108.D Sample Name: 3-methoxy

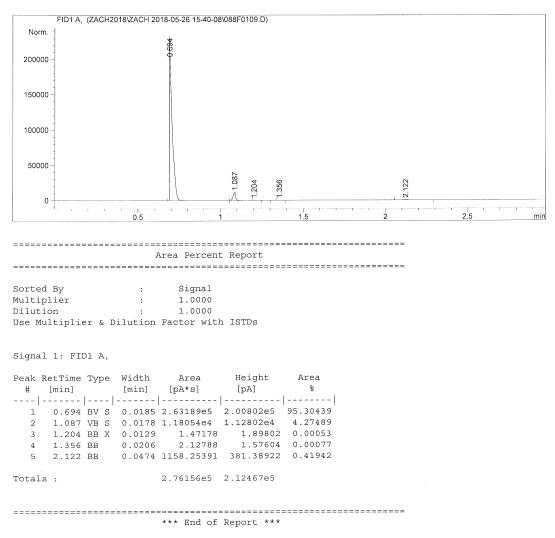
==================	= == :			= == :	
Acq. Operator	:	Zach Taylor	Seq. Line	:	1
Acq. Instrument	:	Instrument 1	Location	:	Vial 88
Injection Date	:	26-May-18, 16:09:14	Inj	:	8
			Inj Volume		*
Acq. Method	:	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-05-2	5	15-40-08\Z1.M
Last changed	:	5/24/2018 7:31:18 PM	by Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\2	54.M		
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor		
		(modified after loadi	.ng)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 9:54:29 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 15-40-08\088F0109.D Sample Name: 3-methoxy

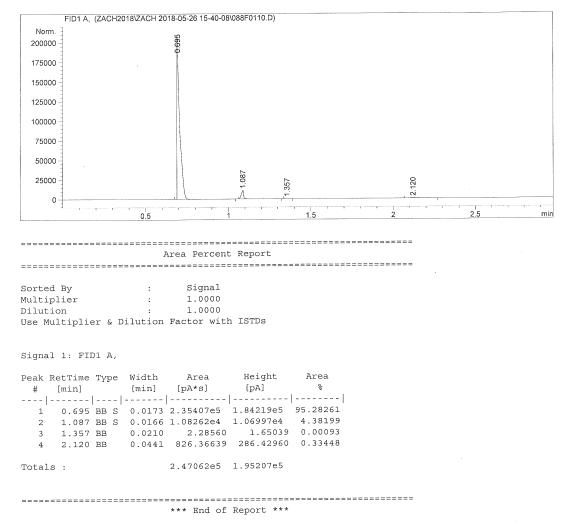
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	26-May-18, 16:13:16	Inj: 9
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-26 15-40-08\Z1.M
Last changed	:	5/24/2018 7:31:18 PM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor
		(modified after loadi	ng)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 9:54:31 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 15-40-08\088F0110.D Sample Name: 3-methoxy

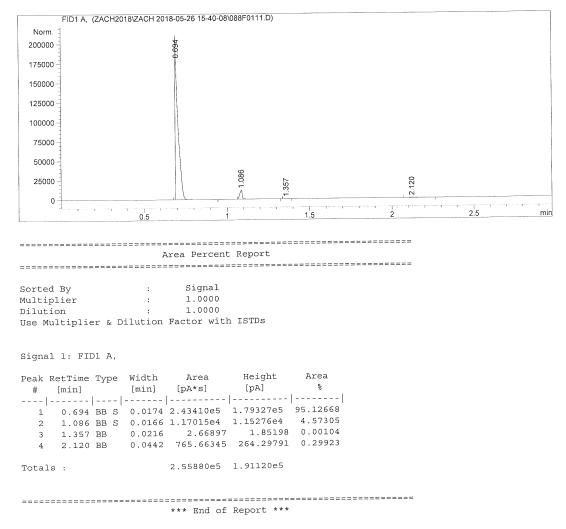
	= ==	=======================================	=======================================
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	26-May-18, 16:17:16	Inj : 10
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	018\ZACH 2018-05-26 15-40-08\Z1.M
Last changed	:	5/24/2018 7:31:18 PM by	/ Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M
Last changed	;	7/6/2018 9:23:05 PM by	Zach Taylor
		(modified after loading	1)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 9:54:33 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 15-40-08\088F0111.D Sample Name: 3-methoxy

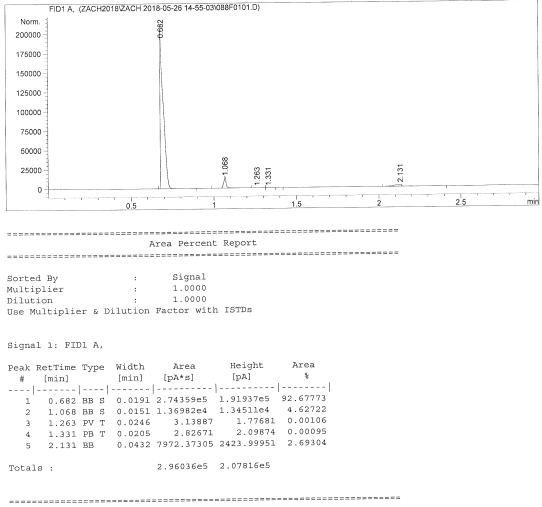
-Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 26-May-18, 16:21:18 Inj : 11 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 15-40-08\Z1.M Acq. Method : 5/24/2018 7:31:18 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info



Instrument 1 7/6/2018 9:54:35 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 14-55-03\088F0101.D Sample Name: 3-methoxy

Acg. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
		26-May-18, 14:56:04	Inj: 1
5		-	Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-26 14-55-03\Z1.M
		5/24/2018 7:31:18 PM b	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
5		(modified after loadin	g)
Method Info	:	Alditol lab.	

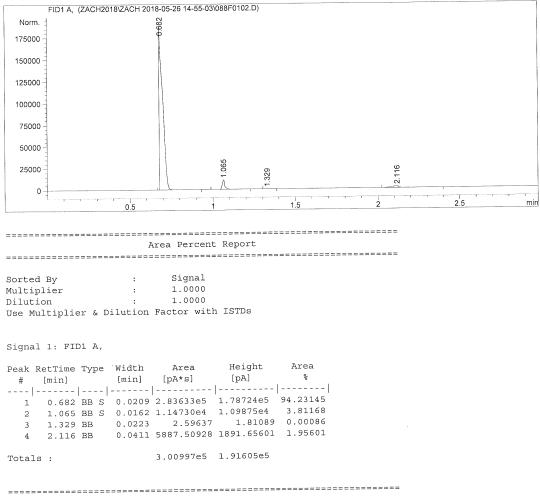


*** End of Report ***

Instrument 1 7/6/2018 9:56:20 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 14-55-03\088F0102.D Sample Name: 3-methoxy

pre name. 5 meenony			
			=======================================
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	26-May-18, 15:00:07	Inj : 2
5		-	Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\Z	ACH 2018-05-26 14-55-03\Z1.M
Last changed		5/24/2018 7:31:18 PM by Zac	h Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	
Last changed		7/6/2018 9:23:05 PM by Zach	Taylor
		(modified after loading)	
Method Info	:	Alditol lab.	

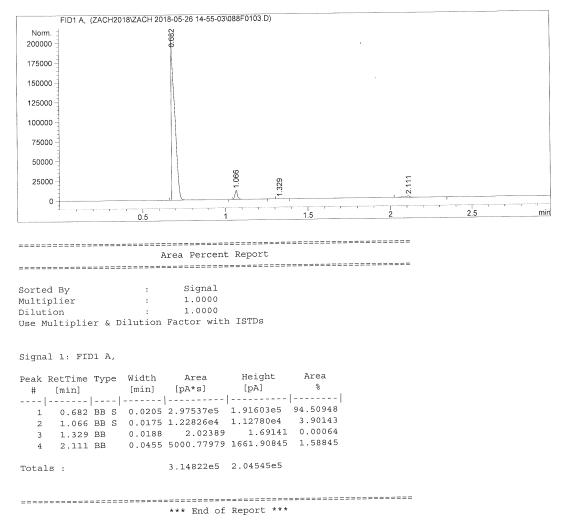


*** End of Report ***

Instrument 1 7/6/2018 9:56:22 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 14-55-03\088F0103.D Sample Name: 3-methoxy

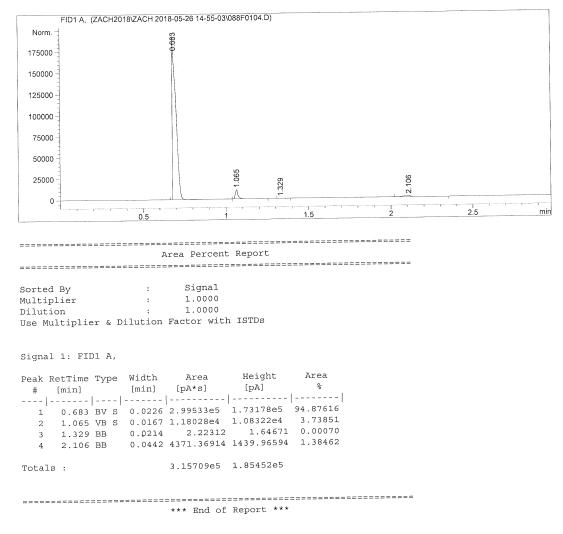
	= =		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument			Location : Vial 88
		26-May-18, 15:04:07	Inj : 3
2		-	Inj Volume : 1 µl
Acg. Method	:	C:\Chem32\1\DATA\ZACH2)18\ZACH 2018-05-26 14-55-03\Z1.M
		5/24/2018 7:31:18 PM by	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
		(modified after loading	3)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 9:56:24 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 14-55-03\088F0104.D Sample Name: 3-methoxy

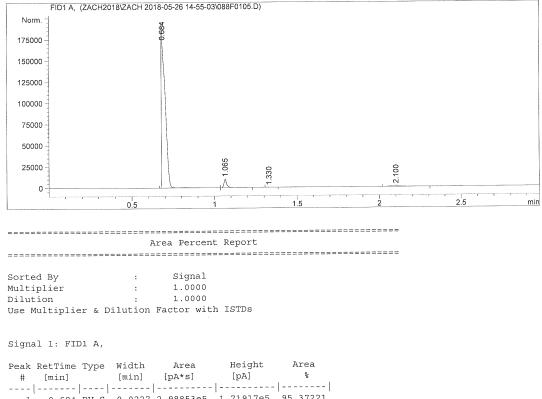
Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 26-May-18, 15:08:09 Inj: 4 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 14-55-03\Z1.M Acq. Method : 5/24/2018 7:31:18 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info



Instrument 1 7/6/2018 9:56:26 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 14-55-03\088F0105.D Sample Name: 3-methoxy

Acq. Operator	: Zach Taylor	Seq. Line : 1	
Acq. Instrument	: Instrument 1	Location : Vial 88	
Injection Date	: 26-May-18, 15:12:10	Inj : 5	
		Inj Volume : 1 µl	
Acq. Method	: C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-26 14-55-03\Z1.M	
Last changed	: 5/24/2018 7:31:18 PM by	Zach Taylor	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M		
Last changed	: 7/6/2018 9:23:05 PM by Z	ach Taylor	
	(modified after loading)		
Method Info	: Alditol lab.		

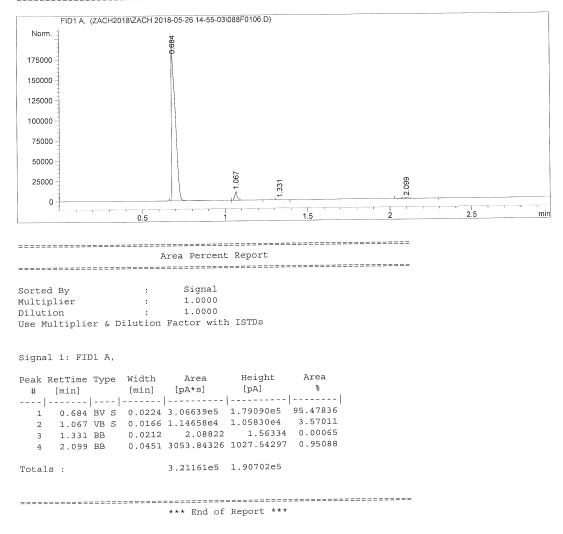


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 [MARA]
 [MARA]

Instrument 1 7/6/2018 9:56:27 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 14-55-03\088F0106.D Sample Name: 3-methoxy

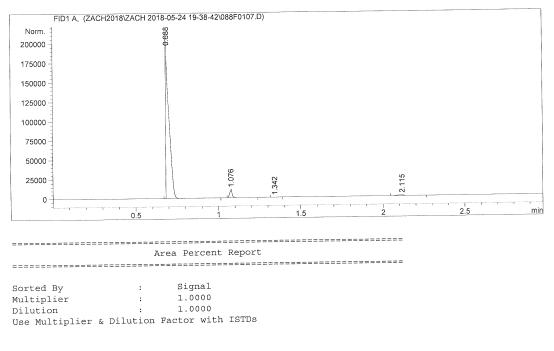
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	26-May-18, 15:16:11	Inj : 6
2		-	Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-26 14-55-03\Z1.M
Last changed	:	5/24/2018 7:31:18 PM by	/ Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M
Last changed	:	7/6/2018 9:23:05 PM by	
		(modified after loading	3)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 9:56:29 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\088F0107.D Sample Name: 3-methoxy

Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument	: Instrument 1	Location : Vial 88
	: 24-May-18, 20:03:49	Inj: 7
5	-	Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-24 19-38-42\Z1.M
	: 5/24/2018 7:31:18 PM by	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.I	1
Last changed	: 7/6/2018 9:23:05 PM by 2	Zach Taylor
_	(modified after loading)
Method Info	: Alditol lab.	



Signal 1: FID1 A,

Height Area Peak RetTime Type Width Area [pA] olo [min] [pA*s] # [min] # [min] [min] [pA*s] [pA] * 1 0.688 BB S 0.0195 2.84371e5 1.94490e5 95.30082 2 1.076 BB S 0.0162 1.11991e4 1.07341e4 3.75315
 1.342
 BB
 0.0205
 2.61689
 2.05357
 0.00088

 2.115
 BB
 0.0375
 2820.26611
 1115.17896
 0.94515
 3 4 2.98393e5 2.06342e5 Totals : *** End of Report ***

Instrument 1 7/6/2018 9:53:31 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\088F0108.D
Sample Name: 3-methoxy
   Acq. Operator : Zach Taylor
                                            Seq. Line : 1
                                            Location : Vial 88
   Acq. Instrument : Instrument 1
                                                 Inj: 8
   Injection Date : 24-May-18, 20:07:52
                                           Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 19-38-42\Z1.M
   Acq. Method
                : 5/24/2018 7:31:18 PM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
   Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
                  (modified after loading)
                : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-24 19-38-42\088F0108.D)
     Norm.
                          9.687
     200000
     175000
     150000
     125000
     100000
      75000
      50000
                                    770.
                                                             12
      25000
                                           .343
                                                             2
        0
                                                                      2.5
                                                                                 min
                                              1.5
                      0.5
    Area Percent Report
    Signal
    Sorted By
                       :
                            1.0000
    Multiplier
                      :
                            1.0000
    Dilution
                      •
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                     Height
                                              Area
    Peak RetTime Type Width
                            Area
                                    [pA]
                                              Ŷ
                    [min]
                           [pA*s]
         [min]
     #
    -----
         0.687 BB S 0.0190 2.78764e5 1.95580e5 95.20554
      1
         1.077 BB S 0.0172 1.16601e4 1.09289e4 3.98226
      2

        1.343
        BB
        0.0198
        2.75179
        2.14456
        0.00094

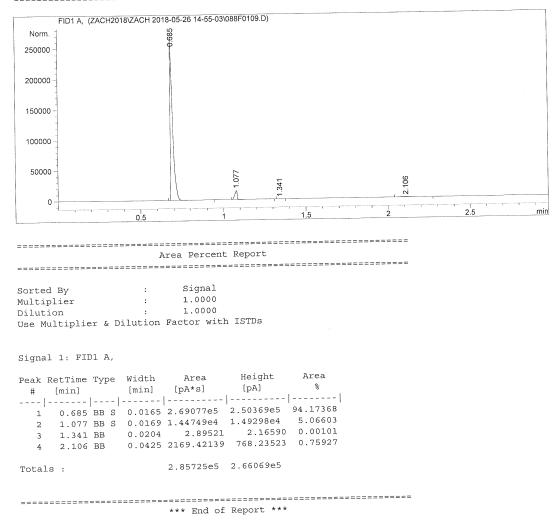
        2.112
        BB
        0.0407
        2375.40430
        940.54456
        0.81127

       3
       4
                          2.92802e5 2.07452e5
    Totals :
    *** End of Report ***
```

Instrument 1 7/6/2018 9:53:33 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 14-55-03\088F0109.D Sample Name: 3-methoxy

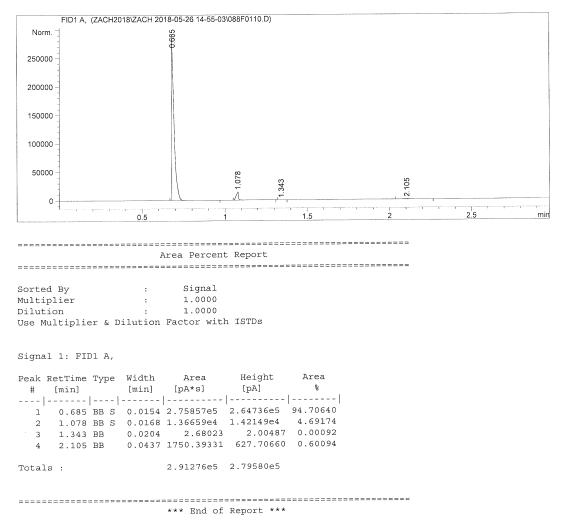
pre Name: 3-methoxy			
Acq. Operator	: Zach Taylor	Seq. Line : 1	
Acq. Instrument		Location : Vial 88	
	: 26-May-18, 15:28:15	Inj: 9	
	-	Inj Volume : 1 µl	
Acg. Method	: C:\Chem32\1\DATA\ZACH2018\	ZACH 2018-05-26 14-55-03\Z1.M	
Last changed	: 5/24/2018 7:31:18 PM by Za	ch Taylor	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M		
Last changed	: 7/6/2018 9:23:05 PM by Zac	h Taylor	
	(modified after loading)		
Method Info	: Alditol lab.		



Instrument 1 7/6/2018 9:56:34 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 14-55-03\088F0110.D Sample Name: 3-methoxy

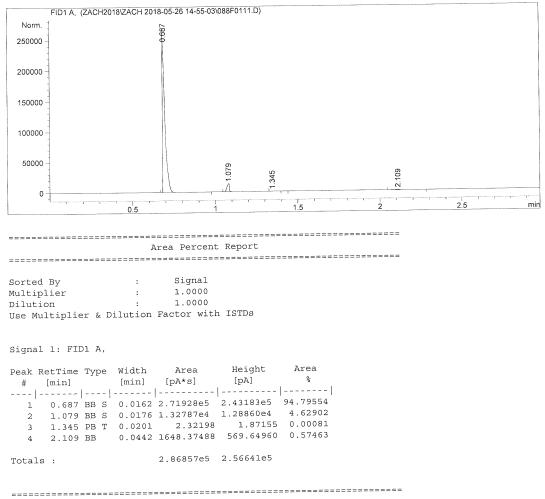
Acq. Operator	:	Zach Taylor	Seq. Line : 1					
Acq. Instrument	:	Instrument 1	Location : Vial 88					
Injection Date	:	26-May-18, 15:32:17	Inj : 10					
-		-	Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-26 14-55-03\Z1.M					
Last changed	:	5/24/2018 7:31:18 PM b	y Zach Taylor					
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M					
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor					
-		(modified after loadin	ig)					
Method Info	:	Alditol lab.						



Instrument 1 7/6/2018 9:56:36 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 14-55-03\088F0111.D Sample Name: 3-methoxy

pre Mame: 3-mechoxy									
Acq. Operator	: Zach Taylor	Seq. Line : 1							
Acq. Instrument	: Instrument 1	Location : Vial 88							
Injection Date	: 26-May-18, 15:36:18	Inj : 11							
-		Inj Volume : 1 µl							
Acq. Method	: C:\Chem32\1\DATA\ZACH2018	\ZACH 2018-05-26 14-55-03\Z1.M							
Last changed	: 5/24/2018 7:31:18 PM by Z	ach Taylor							
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M								
Last changed	: 7/6/2018 9:23:05 PM by Za	ch Taylor							
	(modified after loading)								
Method Info	: Alditol lab.								



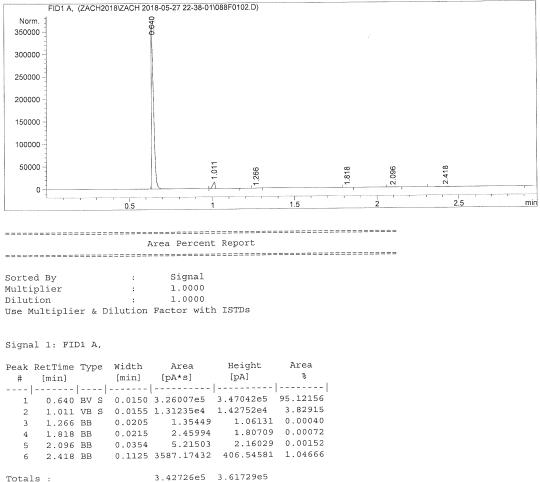
*** End of Report ***

Instrument 1 7/6/2018 9:56:37 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\088F0101.D
Sample Name: 2-methoxy
   _____
                                         Seq. Line :
                                                     1
   Acq. Operator : Zach Taylor
                                          Location : Vial 88
   Acq. Instrument : Instrument 1
                                               Inj: 1
   Injection Date : 27-May-18, 22:39:00
                                         Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\Z1.M
   Acq. Method
               : 5/27/2018 10:38:00 PM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                  (modified after loading)
   Method Info
                : Alditol lab.
   FID1 A. (ZACH2018\ZACH 2018-05-27 22-38-01\088F0101.D)
     Norm
                        0.640
    350000
    300000
     250000
     200000
     150000
     100000
     50000
                                                                  449
                                 6
                                                    .819
                                                          098
                              888
                                       267
        0
                2.5
                                                                              min
                    0.5
                                            1.5
    Area Percent Report
    _____
    Sorted By
                     :
                           Signal
                           1.0000
   Multiplier
                     :
                           1.0000
   Dilution
                     :
   Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                   Height
                                            Area
    Peak RetTime Type Width
                           Area
                          [pA*s]
                                   [pA]
                                             %
     #
        [min]
                   [min]
      0.640 BB S 0.0150 3.23951e5 3.42715e5 94.43465
      1
                                    2.25225 0.00052
         0.888 BB X 0.0132 1.78322
      2
         1.011 BB S 0.0131 1.28380e4 1.39583e4 3.74239
      3
                   0.0214 1.68837 1.18847 0.00049
         1.267 BB
      4
                           2.44521
                                    1.87705 0.00071
         1.819 BB
                   0.0200
      5
                                   2.10133 0.00161
                           5.53787
      6
         2.098 BB
                   0.0379
         2.449 BBA 0.1188 6242.06787 677.03027 1.81962
                         3.43043e5 3.57358e5
    Totals :
                                                                  Page 1 of 2
 Instrument 1 7/6/2018 9:58:40 PM Zach Taylor
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\088F0102.D Sample Name: 2-methoxy

Acq. Operator	:	Zach Taylor	Seq. Line : 1						
Acq. Instrument	;	Instrument 1	Location : Vial 88						
Injection Date	:	27-May-18, 22:43:01	Inj : 2						
-			Inj Volume : 1 µl						
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-27 22-38-01\Z1.M	vī					
		5/27/2018 10:38:00 PM b							
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M						
Last changed	:	7/6/2018 9:23:05 PM by							
		(modified after loading	r)						
Method Info	:	Alditol lab.							

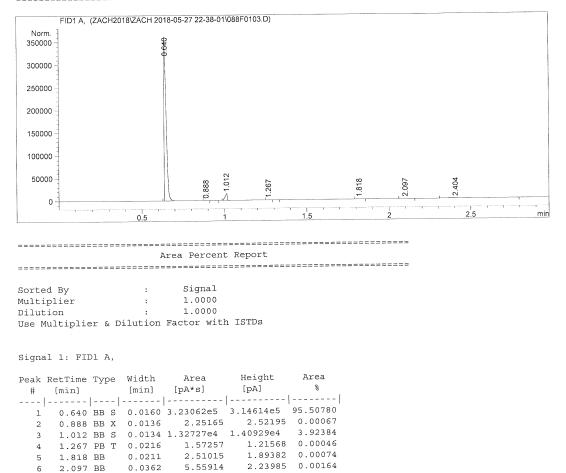


Totals :

Instrument 1 7/6/2018 9:58:42 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\088F0103.D Sample Name: 2-methoxy

Acq. Operator :	Zach Taylor Seq. Line : 1								
Acq. Instrument :	Instrument 1 Location : Vial 88								
Injection Date :	27-May-18, 22:46:59 Inj : 3								
-	Inj Volume : 1 µl								
Acq. Method :	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\Z1.M								
Last changed :	5/27/2018 10:38:00 PM by Zach Taylor								
Analysis Method :	C:\CHEM32\1\METHODS\Z4.M								
Last changed :	7/6/2018 9:23:05 PM by Zach Taylor								
	(modified after loading)								
Method Info :	Alditol lab.								



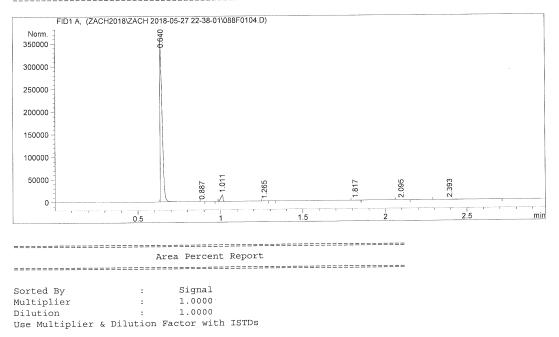
7 2.404 BB 0.1150 1910.61890 230.76419 0.56484

Totals : 3.38257e5 3.28945e5

Instrument 1 7/6/2018 9:58:44 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\088F0104.D Sample Name: 2-methoxy

Acq. Operator	:	Zach Taylor Seq. Line : 1							
Acq. Instrument	:	Instrument 1 Location : Vial 88							
Injection Date	:	27-May-18, 22:51:00 Inj: 4							
		Inj Volume : 1 µl							
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\Z1.M	4						
Last changed	:	5/27/2018 10:38:00 PM by Zach Taylor							
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M							
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor							
		(modified after loading)							
Method Info	:	Alditol lab.							



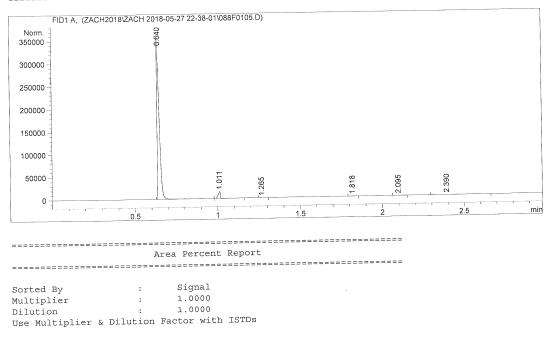
Signal 1: FID1 A,

Peak Re #	etTime [min]	Тур	pe	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.640	BB	s	0.0147	3.19475e5	3.47406e5	95.86418
2	0.887	BB	Х	0.0142	1.93946	2.26838	0.00058
3	1.011	BB	S	0.0149	1.28342e4	1.48139e4	3.85113
4	1.265	PB	т	0.0201	1.36246	1.12739	0.00041
5	1.817	BB		0.0204	2.56050	1.92051	0.00077
6	2.095	BB		0.0364	5.19252	2.13139	0.00156
7	2.393	BB		0.1032	937.70087	121.02730	0.28137
Totals	:				3.33258e5	3.62349e5	

Instrument 1 7/6/2018 9:58:45 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\088F0105.D Sample Name: 2-methoxy

nple Name: 2-metho	хy								
Acq. Operator	: Zach Taylor Seq. Line : 1								
Acq. Instrument	: Instrument 1 Location : Vial 88								
	: 27-May-18, 22:55:01 Inj : 5								
	Inj Volume : 1 µl								
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\Z1.M								
Last changed	: 5/27/2018 10:38:00 PM by Zach Taylor								
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M								
Last changed	: 7/6/2018 9:23:05 PM by Zach Taylor								
	(modified after loading)								
Method Info	: Alditol lab.								



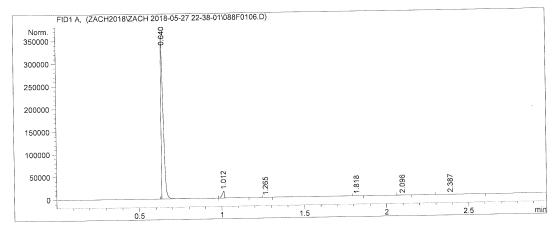
Signal 1: FID1 A,

Peak R #	etTime (min)	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
#						
1	0.640	BV S	0.0147	3.21165e5	3.50083e5	95.88291
2	1.011	VB S	0.0128	1.31996e4	1.48436e4	3.94070
3	1.265	BB	0.0225	1.78652	1.23463	0.00053
4	1.818	BB	0.0211	2.57691	1.94224	0.00077
5	2.095	BB	0.0360	5.34189	2.22976	0.00159
6	2.390	BB	0.1023	581.13666	77.83002	0.17350
Totals	:			3.34955e5	3.65010e5	

Instrument 1 7/6/2018 9:58:47 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\088F0106.D Sample Name: 2-methoxy

Acq. Operator	: Zach Taylor						
Acq. Instrument	: Instrument 1 Location : Vial 88						
	: 27-May-18, 22:59:02 Inj : 6						
	Inj Volume : 1 µl						
Acq. Method Last changed Analysis Method Last changed	<pre>: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\Z1.M : 5/27/2018 10:38:00 PM by Zach Taylor : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)</pre>						
Method Info	: Alditol lab.						



Area Percent Report

-

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & DilutionFactor with ISTDs

Signal 1: FID1 A,

==;

Peak Re # [tTime minl	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.640	BV S	0.0148	3.21499e5	3.46520e5	95.92111
2	1.012		0.0130	1.33740e4	1.47543e4	3.99021
3	1.265	BB	0.0226	1.83665	1.26004	0.00055
4	1.818	BB	0.0213	2.68212	1.99036	0.00080
5	2.096	BB	0.0363	5.46069	2.25323	0.00163
6	2.387	BB	0.0966	287.22955	41.57914	0.08570
Totals	:			3.35171e5	3.61321e5	

Instrument 1 7/6/2018 9:58:49 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\088F0107.D Sample Name: 2-methoxy _____

Acq. Operator : Zach Taylor Seq. Line : 1	
Acq. Instrument : Instrument 1 Location : Vial 88	
Injection Date : 27-May-18, 23:03:01 Inj : 7	
Inj Volume : 1 µ1	
Acq. Method: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01Last changed: 5/27/2018 10:38:00 PM by Zach TaylorAnalysis Method: C:\CHEM32\1\METHODS\Z4.MLast changed: 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)	\Z1.M
Method Info : Alditol lab.	

FID1 A, (ZACH2018\ZACH 2018-05-27 22-38-01\088F0107.D) Norm. 3.640 350000 300000 250000 200000 150000 100000 011 50000 2.097 2.382 266 .817 0 2.5 min 0.5 Area Percent Report

Signal Sorted By : 1.0000 Multiplier : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs

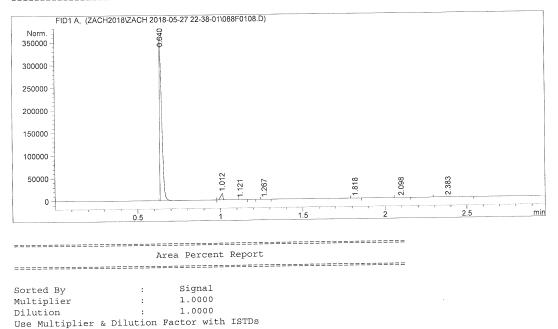
Signal 1: FID1 A,

Peak Re # [tTime min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.640	BV S	0.0149	3.27106e5	3.49264e5	96.09862
2	1.011	VB S	0.0129	1.31673e4	1.46446e4	3.86834
_	1.266		0.0202	1.55805	1.17753	0.00046
4	1.817	BB	0.0210	2.59791	1.97001	0.00076
5	2.097	BB	0.0377	5.41184	2.18285	0.00159
6	2.382	BB	0.0940	102.89548	16.04580	0.03023
Totals	:			3.40385e5	3.63930e5	

Instrument 1 7/6/2018 9:58:50 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\088F0108.D Sample Name: 2-methoxy

pre Name. z-metnoxy							
Acq. Operator	: Zach Taylor	Seq. Line : 1					
Acq. Instrument	: Instrument 1	Location : Vial 88					
Injection Date	: 27-May-18, 23:07:01	Inj: 8					
	-	Inj Volume : 1 µl					
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZACH	2018-05-27 22-38-01\Z1.M					
Last changed		5/27/2018 10:38:00 PM by Zach Taylor					
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M						
Last changed	: 7/6/2018 9:23:05 PM by Zach Tay	ylor					
	(modified after loading)						
Method Info	: Alditol lab.						



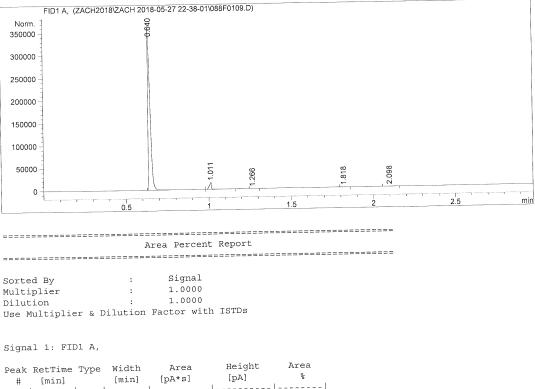
Signal 1: FID1 A,

Peak Re # [tTime [min]	Тур	9	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.640	BV	ຮ່	0.0148	3.25011e5	3.50913e5	96.10982
2	1.012	VB	s	0.0132	1.30985e4	1.41547e4	3.87338
3			x	9.53e-3	1.44440	2.52579	0.00043
4		BB		0.0231	1.76883	1.18013	0.00052
5	1.818	BB		0.0213	2.61958	1.94497	0.00077
6	2.098	BB		0.0372	5.36610	2.14357	0.00159
7	2.383	BB		0.0871	45.60643	7.57016	0.01349
Totals	:				3.38166e5	3.65083e5	

Instrument 1 7/6/2018 9:58:52 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\088F0109.D Sample Name: 2-methoxy

pie Name: 2-mechoxy							
Acq. Operator Acq. Instrument Injection Date	: Instrument 1 Location : Vial 88 : 27-May-18, 23:10:59 Inj : 9 Inj Volume : 1 µl						
Acq. Method Last changed Analysis Method Last changed	<pre>: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\Z1.M : 5/27/2018 10:38:00 PM by Zach Taylor : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)</pre>						
Method Info	: Alditol lab.						



#	[min]		[min]	[pA*s]	[pA]	8
# 2 3 4	(min) 0.640 1.011 1.266 1.818	BVS VBS BB	0.0148	3.24718e5	3.50306e5 1.47171e4 1.22346	96.06676 3.93030 0.00053 0.00079
5	2.098		0.0381	5.51656	2.19810	0.00163

Totals :

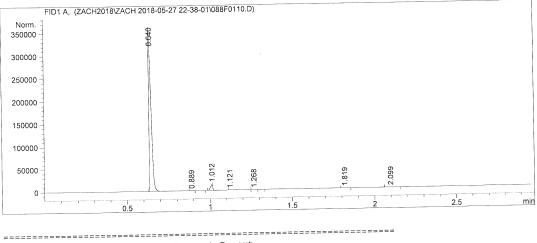
3.38012e5 3.65028e5

*** End of Report ***

Instrument 1 7/6/2018 9:58:53 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\088F0110.D Sample Name: 2-methoxy

```
Seq. Line : 1
Acq. Operator : Zach Taylor
                                        Location : Vial 88
Acq. Instrument : Instrument 1
                                            Inj : 10
Injection Date : 27-May-18, 23:14:59
                                       Inj Volume : 1 µl
             : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\Z1.M
Acq. Method
            : 5/27/2018 10:38:00 PM by Zach Taylor
Last changed
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
              (modified after loading)
             : Alditol lab.
Method Info
```



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

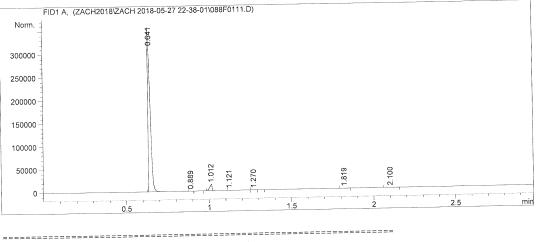
Signal 1: FID1 A,

Peak Re #	etTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.640	BB	s	0.0160	3.26304e5	3.16214e5	96.17402
2	0.889	BB	х	0.0132	2.02219	2.35277	0.00060
3	1.012			0.0133	1.29561e4	1.38740e4	3.81866
4	1.121			0.0363	13.43317	6.16831	0.00396
	1.268			0.0207	1.39360	1.12146	0.00041
5			T	0.0203	2,62756	1.97257	0.00077
6	1.819	BB				2.14910	0.00158
7	2.099	BB		0.0356	5.37081	2.14910	0.00130
Totals	:				3.39285e5	3.30102e5	

Instrument 1 7/6/2018 9:58:56 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\088F0111.D Sample Name: 2-methoxy

pre Name: 2-methoxy						
Acq. Operator	: Zach Taylor Seq. Line : 1					
Acq. Instrument	: Instrument 1 Location : Vial 88					
	: 27-May-18, 23:18:57 Inj : 11					
210,000	Inj Volume : 1 µl					
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 22-38-01\Z1.M	í.				
Last changed	: 5/27/2018 10:38:00 PM by Zach Taylor					
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M					
Last changed	: 7/6/2018 9:23:05 PM by Zach Taylor					
	(modified after loading)					
Method Info	: Alditol lab.					



Area Percent Report _____

Signal Sorted By : 1.0000 Multiplier : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs

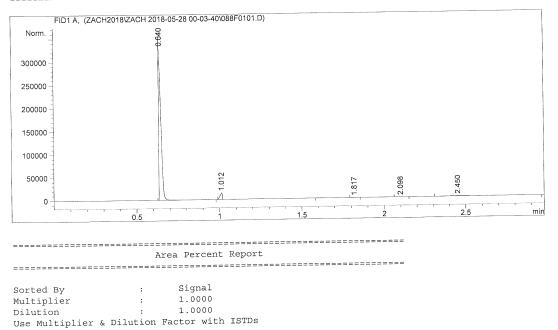
Signal 1: FID1 A,

Peak Re # [tTime min]	тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			-	0.0170	 3.28075e5	3.13027e5	96.12872
-	0.641	BB BB	S X	0.01/0	2.08008	2.23073	0.00061
	1.012			0.0138	1.31828e4	1.34717e4 6.93721	3.86266 0.00528
4 5	1.121	BV PB		0.0433	18.02713 1.30361	1.02986	0.00038
6	1.819			0.0208	2.61848	1.90421	0.00077
7	2.100	BB		0.0375	5.38871	2.13118	0.00158
Totals	:				3.41288e5	3.26513e5	

Instrument 1 7/6/2018 9:58:57 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 00-03-40\088F0101.D Sample Name: 2-methoxy

pie Name: 2-metnoxy							
Acq. Operator	: Zach Taylor	Seq. Line : 1					
Acq. Instrument	: Instrument 1	Location : Vial 88					
	: 28-May-18, 00:04:41	Inj: 1					
		Inj Volume : 1 µl					
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\Z	ACH 2018-05-28 00-03-40\Z1.M					
Last changed	: 5/27/2018 10:38:00 PM by Za	ch Taylor					
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M						
Last changed	: 7/6/2018 9:23:05 PM by Zach	Taylor					
2	(modified after loading)						
Method Info	: Alditol lab.						



Signal 1: FID1 A,

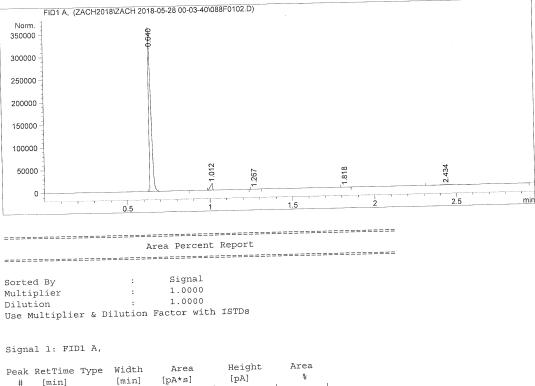
Peak #	RetTime [min]			Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.640	BB	s	0.0149	3.15284e5	3.36683e5	94.55604
2	1.012	BB	S	0.0132	1.30011e4	1.40502e4	3.89914
3	1.817	BB		0.0211	2.52506	1.90525	0.00076
4	2.098	BB		0.0333	5.23924	2.08706	0.00157
5	2.450	BB		0.1188	5143.21240	574.55157	1.54249
Total	.s :				3.33436e5	3.51312e5	

*** End of Report ***

Instrument 1 7/6/2018 9:59:11 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 00-03-40\088F0102.D Sample Name: 2-methoxy

ple Name: 2-methox	У				
Acq. Operator : Acq. Instrument : Injection Date :					
Last changed : Analysis Method :	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 00-03-40\Z1.M 5/27/2018 10:38:00 PM by Zach Taylor C:\CHEM32\1\METHODS\Z4.M 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)				
Method Info	Alditol lab.				



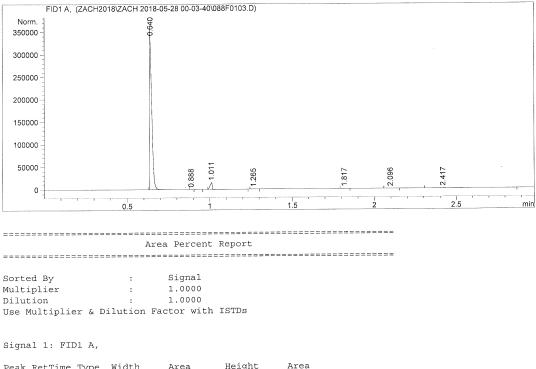
Реак ке	t.r.ime	rype		([Aq]	8
# (min]		[min]	[pA*s]	[PA]	, i
	0.640			3.23775e5	3.15779e5	94.65032
	1.012			1.35056e4	1.38317e4	3.94816
	1.267		0.0222	1.63491	1.20637	0.00048
-	1.818		0.0200	2.53918	2.05414	0.00074
	2.434		0.1202	4790.07227	520.41711	1.40030
Totals	:			3.42075e5	3.30135e5	

*** End of Report ***

Instrument 1 7/6/2018 9:59:13 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 00-03-40\088F0103.D Sample Name: 2-methoxy

Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 88				
Injection Date	:	28-May-18, 00:12:41	Inj: 3				
**			Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-28 00-03-40\Z1.M				
Last changed	:	5/27/2018 10:38:00 PM b	y Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M				
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor				
		(modified after loading)				
Method Info	:	Alditol lab.					

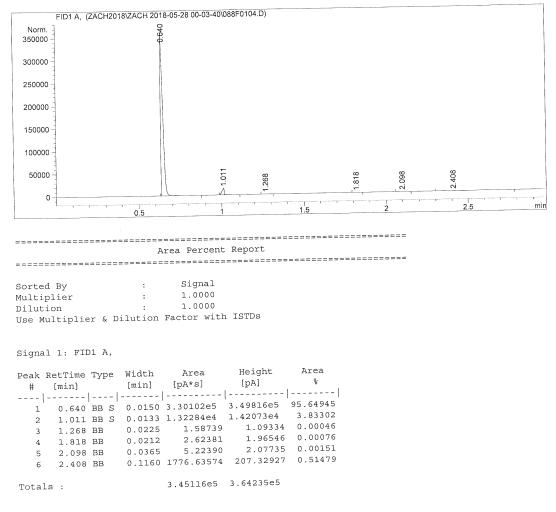


Peak Re	etTime	TY	pe	Width	Area	Height	Area
#	[min]		[min] [pA*s]		[pA]	00	
			-				
1	0.640	BB	S	0.0148	3.20279e5	3.45358e5	95.12466
2	0.888	BB	Х	0.0138	1.73989	2.10081	0.00052
3	1.011	BB	S	0.0127	1.31769e4	1.48638e4	3.91362
4	1.265	BB		0.0201	1.61069	1.16755	0.00048
5	1.817	BB		0.0197	2.34545	1.83562	0.00070
6	2.096	BB		0.0362	5.15700	2.07165	0.00153
7	2.417	BB		0.1216	3227.20361	359.36780	0.95850
Totals	:				3.36694e5	3.60588e5	

Instrument 1 7/6/2018 9:59:15 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 00-03-40\088F0104.D Sample Name: 2-methoxy

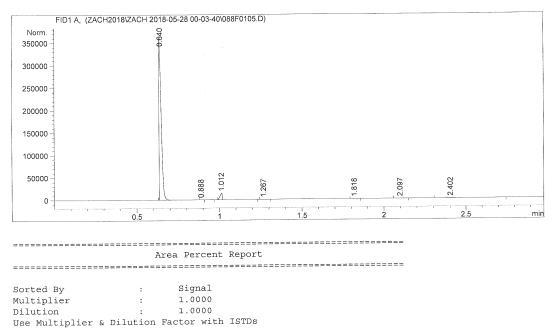
=======================================		
Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument		Location : Vial 88
	: 28-May-18, 00:16:41	Inj: 4
2		Inj Volume : 1 µl
Last changed Analysis Method	: C:\Chem32\1\DATA\ZACH20: : 5/27/2018 10:38:00 PM by : C:\CHEM32\1\METHODS\Z4.1 : 7/6/2018 9:23:05 PM by (modified after loading	M Zach Taylor
Method Info	: Alditol lab.	



Instrument 1 7/6/2018 9:59:17 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 00-03-40\088F0105.D Sample Name: 2-methoxy

Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 88				
Injection Date	:	28-May-18, 00:20:42	Inj : 5				
			Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-28 00-03-40\Z1.M				
Last changed	:	5/27/2018 10:38:00 PM }	oy Zach Taylor				
Analysis Method		C:\CHEM32\1\METHODS\Z4					
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor				
		(modified after loading	g)				
Method Info	:	Alditol lab.					



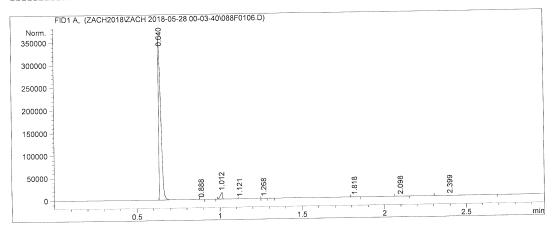
Signal 1: FID1 A,

Peak Re	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
ı	0.640	BB S	0.0148	3.25398e5	3.51467e5	95.73406
2	0.888	вв Х	0.0120	2.01527	2.44354	0.00059
3	1.012	BB S	0.0132	1.33364e4	1.43591e4	3.92364
4	1.267	BB	0.0232	1.65381	1.14537	0.00049
5	1.818	BB	0.0212	2.66325	1.98767	0.00078
6	2.097	BB	0.0374	5.22460	2.07193	0.00154
7	2.402	BB	0.1163	1151.90210	138.41849	0.33890
Totals	:			3.39898e5	3.65972e5	

Instrument 1 7/6/2018 9:59:18 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 00-03-40\088F0106.D Sample Name: 2-methoxy

Acq. Operator	: Zach Taylor	Seq. Line : 1					
Acq. Instrument	: Instrument 1	Location : Vial 88					
	: 28-May-18, 00:24:42	Inj: 6					
5		Inj Volume : 1 µl					
Last changed Analysis Method	: 5/27/2018 10:38:00 PM by : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Z	ach Taylor					
Method Info	(modified after loading) : Alditol lab.						



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

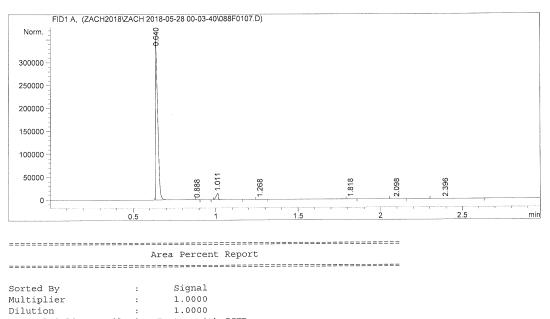
Signal 1: FID1 A,

Peak Re	tTime	тур	be	Width	Area	Height	Area %
# [min]			[min]	[pA*s]	[pA]	- -
1	0.640	BB	s	0.0149	3.27272e5	3.48910e5	95.87379
2	0.888	BB	х	0.0148	1.98657	2.23189	0.00058
_	1.012	BB	S	0.0131	1.33333e4	1.44920e4	3.90598
4	1.121	вv	т	0.0397	17.11764	7.19224	0.00501
5	1.268	PB	т	0.0219	1.43316	1.09166	0.00042
6		BB		0.0201	2.61107	1.99245	0.00076
7	2.098	BB		0.0357	5.22471	2.07820	0.00153
8	2.399	BB		0.1076	723.41266	91.32290	0.21192
0							
Totals	:				3.41357e5	3.63508e5	

Instrument 1 7/6/2018 9:59:20 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 00-03-40\088F0107.D Sample Name: 2-methoxy

Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	28-May-18, 00:28:42	Inj : 7			
			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-28 00-03-40\Z1.M			
Last changed	:	5/27/2018 10:38:00 PM	by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M			
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor			
		(modified after loadin	g)			
Method Info	:	Alditol lab.				



Signal 1: FID1 A,

Dilution

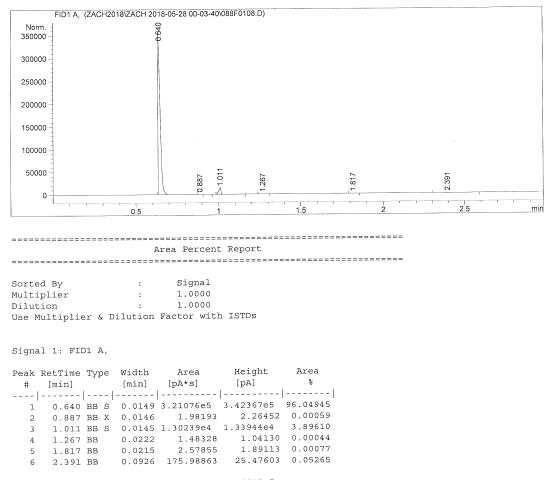
Peak Re #	etTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.640	BB	s	0.0151	3.28628e5	3.46347e5	96.07496
2	0.888	BB	Х	0.0157	1.77266	1.87611	0.00052
3	1.011	BB	s	0.0133	1.30382e4	1.39520e4	3.81173
4	1.268	BB		0.0227	1.54179	1.04912	0.00045
5	1.818	BB		0.0219	2.57359	1.84544	0.00075
6	2.098	BB		0.0396	5.31214	2.01420	0.00155
7	2.396	BB		0.0997	376.39600	50.52690	0.11004
Totals	:				3.42054e5	3.60356e5	

. Use Multiplier & Dilution Factor with ISTDs

Instrument 1 7/6/2018 9:59:22 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 00-03-40\088F0108.D Sample Name: 2-methoxy

	= == :		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	28-May-18, 00:32:42	Inj: 8
2			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-28 00-03-40\Z1.M
Last changed	:	5/27/2018 10:38:00 PM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	1.M
Last changed	:	7/6/2018 9:23:05 PM by	y Zach Taylor
-		(modified after loading	ng)
Method Info	:	Alditol lab.	

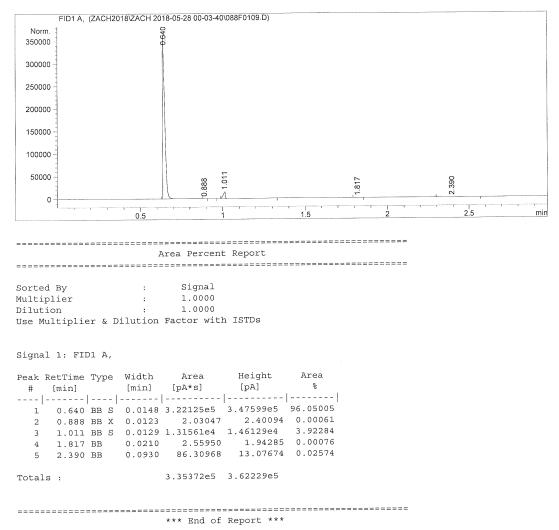


Totals : 3.34282e5 3.55792e5

Instrument 1 7/6/2018 9:59:23 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 00-03-40\088F0109.D Sample Name: 2-methoxy

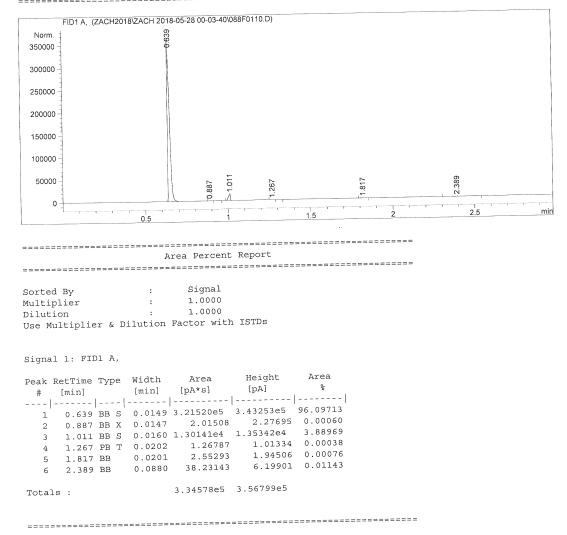
:	Zach Taylor	Seq. Line :	1			
:	Instrument 1	Location :				
:	28-May-18, 00:36:43	Inj :	9			
		Inj Volume :				
;	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-28 0	0-03-40\Z1.M			
:	5/27/2018 10:38:00 PM	by Zach Taylor				
:	C:\CHEM32\1\METHODS\2	4.M				
:	7/6/2018 9:23:05 PM k	y Zach Taylor				
	(modified after loadi	ng)				
:	Alditol lab.					
	:::::::::::::::::::::::::::::::::::::::	: 5/27/2018 10:38:00 PM : C:\CHEM32\1\METHODS\Z : 7/6/2018 9:23:05 PM k	<pre>: Instrument 1 Location : : 28-May-18, 00:36:43 Inj : Inj Volume : : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 C : 5/27/2018 10:38:00 PM by Zach Taylor : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)</pre>			



Instrument 1 7/6/2018 9:59:25 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 00-03-40\088F0110.D Sample Name: 2-methoxy

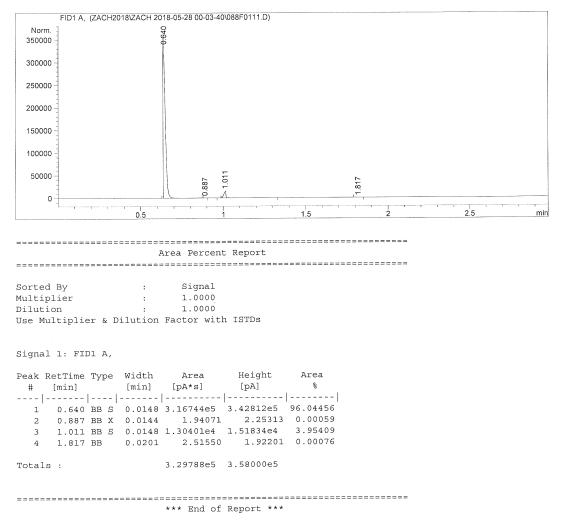
nple Name: 2-metho	хy	
Acq. Operator	: Zach Taylor Seq. Line : 1	
Acq. Instrument	: Instrument 1 Location : Vial 88	
	: 28-May-18, 00:40:42 Inj : 10	
IIIJeccion Date	Inj Volume : 1 µ1	
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 00-03-40\Z1	.М
Last changed	: 5/27/2018 10:38:00 PM by Zach Taylor	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	
Last changed	: 7/6/2018 9:23:05 PM by Zach Taylor	
	(modified after loading)	
Method Info	: Alditol lab.	



Instrument 1 7/6/2018 9:59:26 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 00-03-40\088F0111.D Sample Name: 2-methoxy

```
Acq. Operator : Zach Taylor
                                       Seq. Line : 1
                                        Location : Vial 88
Acq. Instrument : Instrument 1
Injection Date : 28-May-18, 00:44:42
                                             Inj : 11
                                       Inj Volume : 1 µl
            : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 00-03-40\Z1.M
Acq. Method
Last changed
             : 5/27/2018 10:38:00 PM by Zach Taylor
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
            : 7/6/2018 9:23:05 PM by Zach Taylor
Last changed
              (modified after loading)
Method Info
             : Alditol lab.
```



Instrument 1 7/6/2018 9:59:28 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-23 14-11-59\088F0101.D Sample Name: t-cinnama _____ Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 23-May-18, 14:13:00 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-23 14-11-59\Z1.M Acq. Method : 5/23/2018 2:06:46 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-23 14-11-59\088F0101.D) Norm. 0.738 175000 150000 125000 100000 75000 50000 2.348 25000 .185 .250 0 2.5 0.5 _____ Area Percent Report Signal Sorted By : 1.0000 Multiplier : 1.0000 Dilution . Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area [pA] 8 [min] [pA*s] [min] # _____ ----0.738 BV S 0.0203 2.63233e5 1.71314e5 93.82673 1 3.80871 1.046 VB S 0.0164 1.06854e4 1.00503e4 2 1.185 BV X 0.0179 27.61547 23.25665 0.00984 3 3.83537 0.00178 4.98283 1,250 VB X 0.0192 4 9.17838 0.00464 0.0221 13.01270 1.871 BV 5 0.0283 114.43707 60.89322 0.04079 1.918 VB 6 0.0394 6473.76221 2181.01270 2.30751 2.348 BB 7

Totals :

2.80552e5 1.83642e5

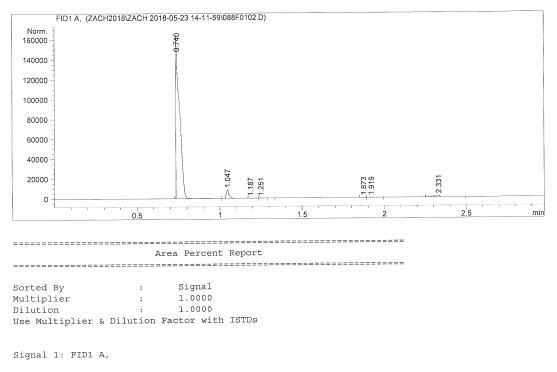
Instrument 1 7/6/2018 10:00:32 PM Zach Taylor

Page 1 of 2

min

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-23 14-11-59\088F0102.D Sample Name: t-cinnama

ipre name. e erime	pre name, e erinama						
Acq. Operator	:	Zach Taylor	Seq.	Line	:	1	
Acq. Instrument	:	Instrument 1	Loca	ation	:	Vial 8	38
Injection Date	:	23-May-18, 14:17:03		Inj	:	2	
			Inj Vo			-	
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZAC	H 2018	-05-23	3 3	14-11-5	59\Z1.M
Last changed	:	5/23/2018 2:06:46 PM by Zach	Taylor				
Analysis Method	:	$C: CHEM32 \ 1 METHODS \ Z4.M$					
Last changed	:	7/6/2018 9:23:05 PM by Zach T	aylor				
		(modified after loading)					
Method Info	:	Alditol lab.					

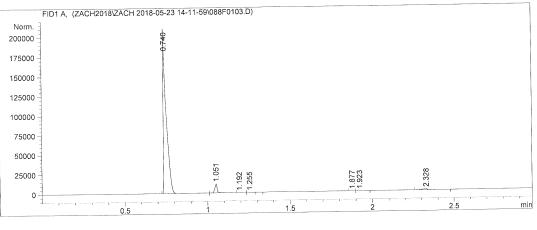


Peak Re	etTime	Type	e Width	Area	Height	Area
# 1	(min)		[min]	[pA*s]	[pA]	\$
1	0.740	BV :	6 0.0214	2.47451e5	1.46031e5	94.73062
2	1.047	VB :	5 0.0181	9914.11914	8724.21777	3.79538
3	1.187	BV 3	(0.0195	7.53892	5.68727	0.00289
4	1.251	VB 3	¢ 0.0197	4.51941	3.36619	0.00173
5	1.873	BV	0.0223	6.85271	4.80011	0.00262
6	1.919	VB	0.0284	60.92266	32.26930	0.02332
7	2.331	BB	0.0348	3770.46509	1548.49951	1.44343
Totals	:			2.61215e5	1.56350e5	

Instrument 1 7/6/2018 10:00:34 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-23 14-11-59\088F0103.D Sample Name: t-cinnama

npie Name: t-cinna	una	4					
	= = =		======	=====	2 04 2	20220000-	
Acq. Operator	:	Zach Taylor		Line			
Acq. Instrument	:	Instrument 1	Loca			Vial 88	
		23-May-18, 14:21:02				3	
			Inj V				
Acq. Method		C:\Chem32\1\DATA\ZACH2018\ZAC			3 3	14-11-59\Z1.	М
Last changed		5/23/2018 2:06:46 PM by Zach	Taylor				
Analysis Method		C:\CHEM32\1\METHODS\Z4.M					
Last changed	:	7/6/2018 9:23:05 PM by Zach 7	aylor				
-		(modified after loading)					
Method Info	:	Alditol lab.					



Area Percent Report

Sorted By : Signal Multiplier : 1.0000

Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

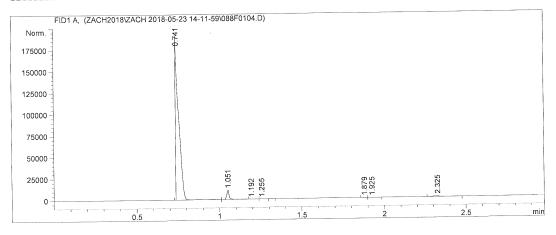
Signal 1: FID1 A,

Peak Re # [tTime min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
 1 2 3 4 5	0.740 1.051 1.192 1.255 1.877 1.923	BV X VB X BV	0.0186 0.0143 0.0182 0.0180 0.0208 0.0265	2.61123e5 1.10149e4 5.31305 5.30691 6.94896 40.01609	1.79428e5 1.16084e4 4.35597 4.43764 5.07025 23.18214	94.96937 4.00608 0.00193 0.00193 0.00253 0.01455
6 7 Totals	1.923 2.328 :		0.0285			1.00361

Instrument 1 7/6/2018 10:00:36 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-23 14-11-59\088F0104.D Sample Name: t-cinnama

Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument			Location : Vial 88
		23-May-18, 14:25:06	Inj : 4
3			Inj Volume : 1 µl
Acg. Method	:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-23 14-11-59\Z1.M
Last changed	:	5/23/2018 2:06:46 PM k	oy Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	L.M.
Last changed	:	7/6/2018 9:23:05 PM by	/ Zach Taylor
2		(modified after loadir	ng)
Method Info	:	Alditol lab.	



Area Percent Report

Signal Sorted By : 1.0000 Multiplier : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.741	BV	S	0.0192	2.56423e5	1.78532e5	95.30441
2	1.051	VB	S	0.0145	1.03432e4	1.07017e4	3.84424
3	1.192	вv	Х	0.0192	5.46389	4.19666	0.00203
4	1.255	VB	Х	0.0182	5.04571	4.13938	0.00188
5	1.879	ВV		0.0216	6.08279	4.43354	0.00226
6	1.925	VB		0.0259	31.51264	18.12484	0.01171
7	2.325	BB		0.0317	2242.51001	1035.97400	0.83347
					0 60057-5	1 0020105	

Totals :

2.69057e5 1.90301e5

Instrument 1 7/6/2018 10:00:37 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-23 14-11-59\088F0105.D Sample Name: t-cinnama Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 5 Injection Date : 23-May-18, 14:29:07 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-23 14-11-59\Z1.M Acq. Method : 5/23/2018 2:06:46 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-23 14-11-59\088F0105.D) Norm. 0.742 175000 150000 125000 100000 75000 50000 .882 927 2.325 25000 195 258 0 25 1 5 0.5 Area Percent Report Signal Sorted By : Multiplier 1.0000 : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area [pA] 8 [min] [pA*s] [min] # ____ ____ 0.742 BV S 0.0207 2.60849e5 1.66190e5 95.27869 1 1.053 VB S 0.0161 1.09631e4 1.05270e4 4.00443 2 4.66137 3.70597 0.00170 3 1.195 BV X 0.0187 4.25904 0.00194 5.30282 1.258 VB X 0.0185 4 0.02175.814964.226840.002120.026125.9457914.786360.00948 1.882 BV 5 1 927 VB 6 0.0328 1920.91138 873.85950 0.70164 7 2.325 BB

Totals :

2.73774e5 1.77618e5

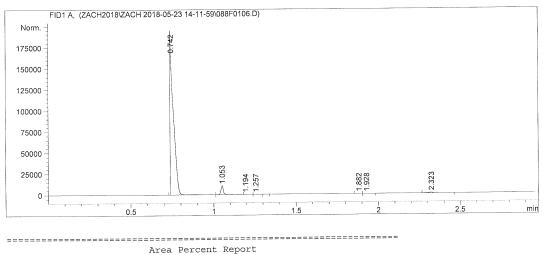
Instrument 1 7/6/2018 10:00:39 PM Zach Taylor

Page 1 of 2

min

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-23 14-11-59\088F0106.D Sample Name: t-cinnama

	=======================================	
Acq. Operator :	Zach Taylor	Seq. Line : 1
Acq. Instrument :	Instrument 1	Location : Vial 88
Injection Date :	23-May-18, 14:33:09	Inj: 6
5		Inj Volume : 1 µl
Acq. Method :	C:\Chem32\1\DATA\ZACH2018\	ZACH 2018-05-23 14-11-59\Z1.M
Last changed :	5/23/2018 2:06:46 PM by Za	ach Taylor
Analysis Method :	C:\CHEM32\1\METHODS\Z4.M	
Last changed :	7/6/2018 9:23:05 PM by Zac	ch Taylor
	(modified after loading)	
Method Info :	Alditol lab.	



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

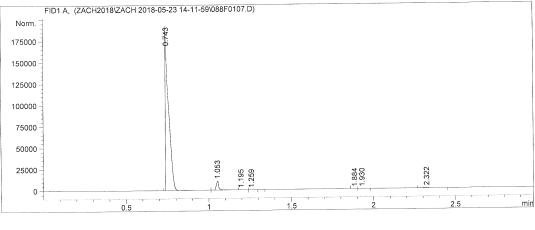
Signal 1: FID1 A,

Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.742	вv s	0.0208	2.62165e5	1.66029e5	95.55257
2	1.053	VB S	0.0168	1,05576e4	1.02466e4	3.84797
3	1.194	BV X	0.0192	4.72376	3.62198	0.00172
4	1.257	VB X	0.0187	5.21515	4.14272	0.00190
5	1.882	BV	0.0214	5.25064	3.88853	0.00191
6	1.928	VB	0.0267	20.82274	11.94618	0.00759
7	2.323	BB	0.0316	1608.69836	745.57050	0.58633
Totals	:			2.74367e5	1.77045e5	

Instrument 1 7/6/2018 10:00:41 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-23 14-11-59\088F0107.D Sample Name: t-cinnama

upre Mame: c-crime	uuc	1								
Acq. Operator	:	Zach Taylor	Seq. Line : 1							
Acq. Instrument	:	Instrument 1	Location : Vial 88							
Injection Date	:	23-May-18, 14:37:09	Inj: 7							
		*	Inj Volume : 1 µl							
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-23 14-11-59\Z1.M							
Last changed		5/23/2018 2:06:46 PM by								
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M								
Last changed		7/6/2018 9:23:05 PM by Z								
0		(modified after loading)								
Method Info	:	Alditol lab.								



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

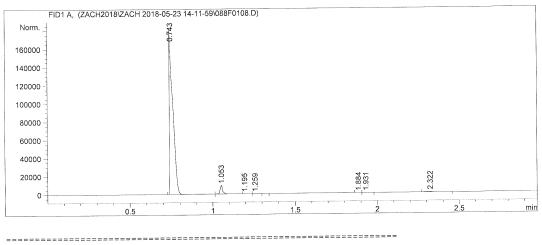
Signal 1: FID1 A,

Peak Re # [tTime [min]	Тур	be	Width [min]	Area [pA*s]	Height [pA]	Area %
ı	0.743	вv	s	0.0197	2.58936e5	1.66888e5	95.56705
2	1.053	VB	s	0.0164	1.05827e4	1.06319e4	3.90580
3	1.195	вv	х	0.0191	4.51838	3.48040	0.00167
4	1.259	VB	х	0.0195	5.03242	4.00287	0.00186
5	1.884	вv		0.0220	5.22572	3.72487	0.00193
6	1.930	VB		0.0261	18.01879	10.26557	0.00665
7	2.322	BB		0.0309	1395.49487	643.80994	0.51504
Totals	:				2.70947e5	1.78185e5	

Instrument 1 7/6/2018 10:00:43 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-23 14-11-59\088F0108.D Sample Name: t-cinnama

ipie Name: c-crime	uud.									
Acq. Operator	: Zach Taylor	Seq. Line : 1								
Acq. Instrument	: Instrument 1	Location : Vial 88								
Injection Date	: 23-May-18, 14:41:11	Inj: 8								
-		Inj Volume : 1 µl								
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZA									
Last changed	: 5/23/2018 2:06:46 PM by Zach	n Taylor								
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M									
Last changed	: 7/6/2018 9:23:05 PM by Zach	Taylor								
	(modified after loading)									
Method Info	: Alditol lab.									



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

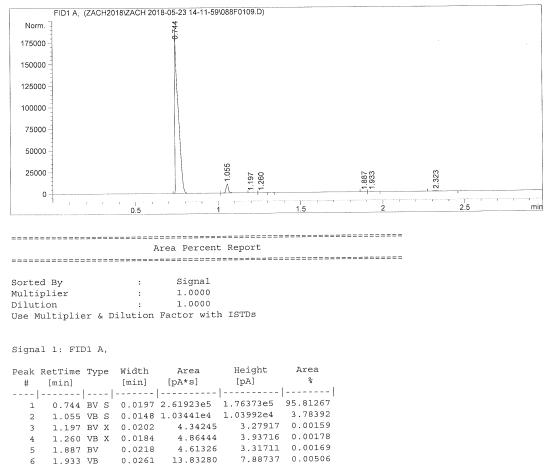
Signal 1: FID1 A,

Peak Re # [tTime [min]	түр	e	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.743	вv	s	0.0206	2.58758e5	1.66157e5	95.83858
2	1.053	VB	S	0.0173	9968.87793	9320.90723	3.69227
3	1.195	вv	Х	0.0199	4.67720	3.42511	0.00173
4	1.259	VB	Х	0.0190	4.87318	3.79813	0.00180
5	1.884	ВV		0.0222	4.71284	3.30902	0.00175
6	1.931	VB		0.0270	16.01178	9.07558	0.00593
7	2.322	BB		0.0334	1236.41760	566.97760	0.45794
Totals	:				2.69993e5	1.76065e5	

Instrument 1 7/6/2018 10:00:45 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-23 14-11-59\088F0109.D Sample Name: t-cinnama

Acq. Operator	:	Zach Taylor	Seq.	Line	:	1				
Acq. Instrument	:	Instrument 1	Loca	ation	:	Vial 8	38			
Injection Date	:	23-May-18, 14:45:12		Inj	:	9				
2			Inj Vo							
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-	-05-23	3 3	14-11-5	59\Z1.M			
Last changed	:	5/23/2018 2:06:46 PM	by Zach Taylor							
Analysis Method	:	C:\CHEM32\1\METHODS\Z	54.M							
Last changed	:	7/6/2018 9:23:05 PM k	y Zach Taylor							
-		(modified after loadi	.ng)							
Method Info	:	Alditol lab.								



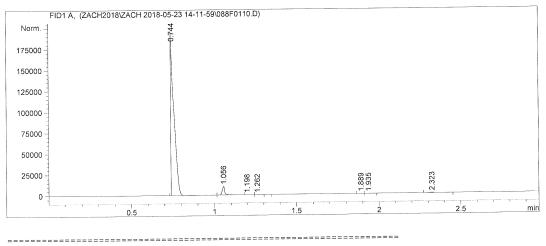
7 2.323 BB 0.0324 1075.14941 498.16400 0.39329						
	7	2.323 BB	0.0324	1075.14941	498.16400	0.39329

Totals : 2.73370e5 1.87289e5

Instrument 1 7/6/2018 10:00:46 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-23 14-11-59\088F0110.D Sample Name: t-cinnama

pre Name: c-crimama										
Acq. Operator	:	Zach Taylor	Seq. Line : 1							
Acq. Instrument	:	Instrument 1	Location : Vial 88							
Injection Date	:	23-May-18, 14:49:13	Inj : 10							
5		-	Inj Volume : 1 µl							
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-23 14-11-59\Z1.M							
Last changed	:	5/23/2018 2:06:46 PM by	Zach Taylor							
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M								
Last changed	:	7/6/2018 9:23:05 PM by Z	ach Taylor							
		(modified after loading)								
Method Info	:	Alditol lab.								



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak Re #	etTime [min]	Тур	be	Width [min]	Area [pA*s]	Height [pA]	Area %
			- 1				
1	0.744	вv	s	0.0190	2.61918e5	1.84093e5	95.81858
2	1.056	VB	s	0.0152	1.04912e4	1.01955e4	3.83804
3	1.198	вv	х	0.0196	3.97799	2.98232	0.00146
4	1.262	VB	х	0.0187	5.14499	4.09102	0.00188
- 5	1.889	BV		0.0223	4.51459	3.16270	0.00165
6	1.935	VB		0.0258	11.54867	6.65942	0.00422
7	2.323			0.0330	913.42395	425.86813	0.33416
Totals	:				2,73348e5	1.94731e5	

Instrument 1 7/6/2018 10:00:48 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-23 14-11-59\088F0111.D Sample Name: t-cinnama

ple Name: t-cinna	ama		
Acq. Operator	: Zach Taylor	Seq. Line : 1	
Acq. Instrument	: Instrument 1	Location : Vial 88	
Injection Date	: 23-May-18, 14:53:12	Inj : 11	
		Inj Volume : 1 µl	
Acq. Method	: C:\Chem32\1\DATA\ZACH2018	XZACH 2018-05-23 14-11-59\Z1.M	
	: 5/23/2018 2:06:46 PM by Z	ach Taylor	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M		
Last changed	: 7/6/2018 9:23:05 PM by Za	ch Taylor	
	(modified after loading)		
Method Info	: Alditol lab.		
FID1 A, (ZAC	CH2018\ZACH 2018-05-23 14-11-59\088F011	I.D)	
Norm.	0.7 46		
160000 -	<u></u>		
-			
140000			
120000			
120000			
100000			
80000			
-			

Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & DilutionFactor with ISTDs

Signal 1: FID1 A,

Peak Re # [tTime [min]	Тур	be	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.746	вv	s	0.0209	2.55645e5	1.54706e5	96.34350
2	1.055	VB	S	0.0166	8950.28516	8313.41895	3.37304
3	1.197	вv	х	0.0244	3.50526	2.39069	0.00132
4	1.261	VB	х	0.0198	4.24597	3.29410	0.00160
5	1.890	вv		0.0232	3.80593	2.52745	0.00143
6	1.937	VB		0.0270	9.67419	5.28554	0.00365
7	2.324	BB		0.0338	730.90619	330.36295	0.27545
Totals	:				2.65348e5	1.63363e5	

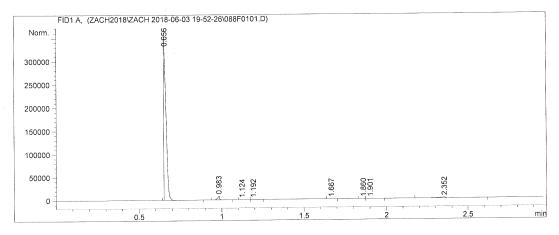
Instrument 1 7/6/2018 10:00:49 PM Zach Taylor

Page 1 of 2

min

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-03 19-52-26\088F0101.D Sample Name: cinnamaldehyde

Acq. Operator	:	Zach Taylor			Seq.	Line	:	1	
Acq. Instrument	:	Instrument 1			Loca	ation	:	Vial	88
Injection Date	:	03-Jun-18, 19:53:30				Inj	:	1	
-						olume			
Acq. Method	:	C:\Chem32\1\DATA\ZAC	H2018	\ZACH	2018	-06-0	3	19-52-	-26\Z4.M
Last changed	:	6/3/2018 6:09:38 PM	by Za	ch Tay	lor				
Analysis Method	:	C:\CHEM32\1\METHODS\	Z4.M						
Last changed	:	7/6/2018 9:23:05 PM	by Za	ch Tay	lor				
		(modified after load	ing)						
Method Info	:	Alditol lab.							



Area Percent Report

Sorted By	:	Signal	
Multiplier	:	1.0000	
Dilution	:	1.0000	
Use Multiplier	& Dilution	Factor with	ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
	[many]					
1	0.656	BB S	0.0164	3.32250e5	3.33261e5	96.52552
2	0.983	BB S	0.0128	6893.32666	7716.97021	2.00265
3	1,124	BV	0.0151	17.25888	16.90164	0.00501
4	1.192	VB	0.0187	4.06975	3.24093	0.00118
5	1.667	BB	0.0253	2.77832	1.51863	0.00081
6	1.860	вv	0.0205	13.44564	9.99120	0.00391
7	1.901		0.0266	80.61037	44.84662	0.02342
8	2.352	BB	0.0423	4948.00098	1509.03333	1.43750

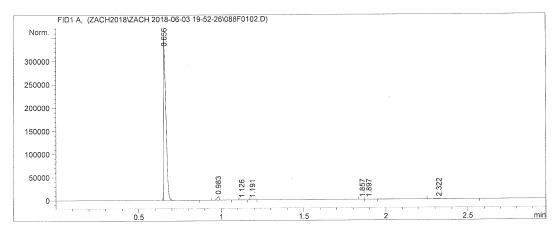
Totals :

3.44210e5 3.42563e5

Instrument 1 7/6/2018 10:02:29 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-03 19-52-26\088F0102.D Sample Name: cinnamaldehyde

Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	03-Jun-18, 19:57:32	Inj : 2			
			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH	H2018\ZACH 2018-06-03 19-52-26\Z4.M			
Last changed	:	6/3/2018 6:09:38 PM }	oy Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\2	Z4.M			
Last changed	:	7/6/2018 9:23:05 PM b	oy Zach Taylor			
		(modified after load:	ing)			
Method Info	:	Alditol lab.				
Last changed Analysis Method Last changed	::	6/3/2018 6:09:38 PM 3 C:\CHEM32\1\METHODS\2 7/6/2018 9:23:05 PM 3 (modified after load:	oy Zach Taylor Z4.M oy Zach Taylor			



Area Percent Report

Sorted By	:	Signal	
Multiplier	:	1.0000	
Dilution	:	1.0000	
Use Multiplier	& Dilution	Factor with	ISTDs

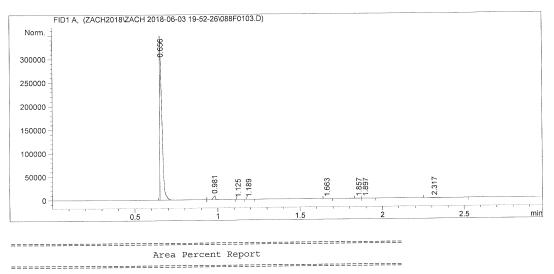
Signal 1: FID1 A,

Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.656	BB S	0.0164	3.33127e5	3.34470e5	97.22545
2	0.983	BB S	0,0129	6971.96631	7742.45020	2.03482
3	1.126	BB	0.0164	3.49537	3.29204	0.00102
4	1.191	BB	0.0146	3.60694	3.70386	0.00105
5	1.857	вv	0.0188	4.89555	4.07102	0.00143
6	1.897	VB	0.0241	38.34741	24.14090	0.01119
7	2.322	BB	0.0353	2484.21606	951.16370	0.72504
Totals	:			3.42633e5	3.43199e5	

Instrument 1 7/6/2018 10:02:31 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-03 19-52-26\088F0103.D Sample Name: cinnamaldehyde

Acq. Operator	: Zach Taylor	Seq. Line : 1				
Acq. Instrument	: Instrument 1	Location : Vial 88				
Injection Date	: 03-Jun-18, 20:01:35	Inj : 3				
5		Inj Volume : 1 µl				
Acq. Method	: C:\Chem32\1\DATA\ZACH2018	\ZACH 2018-06-03 19-52-26\Z4.M				
Last changed	: 6/3/2018 6:09:38 PM by Za	ch Taylor				
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M					
Last changed	: 7/6/2018 9:23:05 PM by Za	ch Taylor				
	(modified after loading)					
Method Info	: Alditol lab.					



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

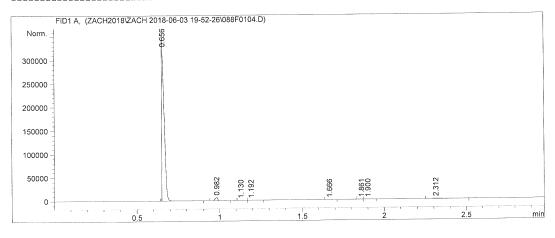
Signal 1: FID1 A,

Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
		-				
1	0.656	BV S	0.0161	3.10687e5	2.99265e5	97.18110
2	0.981	VB S	0.0130	7075.65967	8447.42090	2.21323
3	1.125	BB	0.0147	2.66995	2.72041	0.00084
4	1.189	BB	0.0163	4.12980	3.67675	0.00129
5	1.663	BB	0.0183	1.60666	1.38674	0.00050
6	1.857	BV	0.0196	4.14827	3.26822	0.00130
7	1.897	VB	0.0258	30.47709	17.61709	0.00953
8	2.317	BB	0.0357	1893.29639	754.16443	0.59221
Totals	:			3.19699e5	3.08495e5	

Instrument 1 7/6/2018 10:02:33 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-03 19-52-26\088F0104.D Sample Name: cinnamaldehyde

Acq. Operator :	Zach Taylor	Seq. Line : 1
Acq. Instrument :	Instrument 1	Location : Vial 88
Injection Date :	03-Jun-18, 20:05:36	Inj: 4
		Inj Volume : 1 µl
Acq. Method :	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-06-03 19-52-26\Z4.M
Last changed :	6/3/2018 6:09:38 PM by	Zach Taylor
Analysis Method :	C:\CHEM32\1\METHODS\Z4	. M
Last changed :	7/6/2018 9:23:05 PM by	Zach Taylor
	(modified after loadin	.g)
Method Info :	Alditol lab.	



Area Percent Report -

Sorted By Signal . 1.0000 Multiplier : 1.0000

Dilution Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

	RetTime	Туре	Width	Area	Height	Area %
#	[min]		[min]	[pA*s]	[pA]	3
1	0.656	BB S	0.0168	3.47919e5	3.39529e5	97.62212
2	0.982	BB S	0.0190	7014.30225	6477.49805	1.96813
3	1.130	вv	0.0176	2.97360	2.55834	0,00083
4	1.192	VB	0.0192	4.45709	3,24464	0.00125
5	1.666	BB	0.0261	2.93015	1.66930	0.00082
6	1.861	BV	0.0208	3.42543	2.62816	0.00096
7	1.900	VB	0.0268	21.48728	11.81066	0.00603
8	2.312	BB	0.0359	1425.02368	562.83044	0.39985

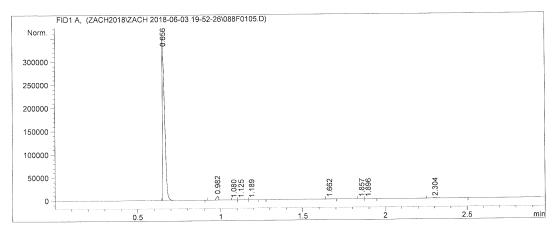
Totals :

3.56394e5 3.46591e5

Instrument 1 7/6/2018 10:02:35 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-03 19-52-26\088F0105.D Sample Name: cinnamaldehyde

Acq. Operator :	Zach Taylor	Seq. Line : 1
Acq. Instrument :	Instrument 1	Location : Vial 88
Injection Date :	03-Jun-18, 20:09:38	Inj: 5
2		Inj Volume : 1 µl
Acq. Method :	C:\Chem32\1\DATA\ZAG	CH2018\ZACH 2018-06-03 19-52-26\Z4.M
Last changed :	6/3/2018 6:09:38 PM	by Zach Taylor
Analysis Method :	C:\CHEM32\1\METHODS	\Z4.M
Last changed :	7/6/2018 9:23:05 PM	by Zach Taylor
-	(modified after load	ling)
Method Info :	Alditol lab.	



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.656	BB S	0.0155	3.26602e5	3.32080e5	97.54794
2	0.982	BB S	0.0130	7066.01416	8427.56836	2.11044
3	1.080	BV T	0.0144	1.25200	1.44717	0.00037
4	1.125	PV T	0.0182	3.61074	2.81286	0.00108
5	1.189	РВ Т	0.0151	4.14624	4.06438	0.00124
6	1.662	BB	0.0251	2.21758	1.38355	0.00066
7	1.857	вv	0.0191	3.25392	2.66079	0.00097
8	1.896	VB	0.0244	16.71587	10.36178	0.00499
9	2.304	BB	0.0341	1112.57166	482.26529	0.33230

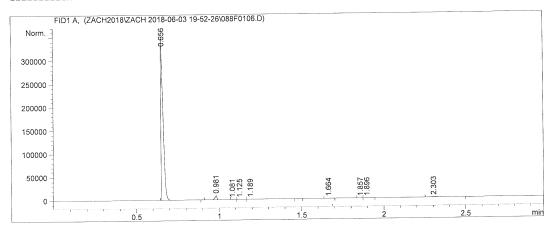
Totals :

3.34812e5 3.41013e5

Instrument 1 7/6/2018 10:02:37 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-03 19-52-26\088F0106.D Sample Name: cinnamaldehyde

= == :		
:	Zach Taylor	Seq. Line : 1
		Location : Vial 88
		Inj : 6
		Inj Volume : 1 µl
:	C:\Chem32\1\DATA\ZAC	H2018\ZACH 2018-06-03 19-52-26\Z4.M
:	C:\CHEM32\1\METHODS\	Z4.M
:	7/6/2018 9:23:05 PM	by Zach Taylor
	(modified after load	ling)
:	Alditol lab.	
	: : : : :	: 6/3/2018 6:09:38 PM : C:\CHEM32\1\METHODS\ : 7/6/2018 9:23:05 PM



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

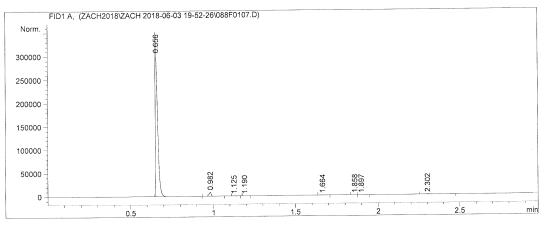
Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.656	BB S	0.0151	3.15446e5	3.32561e5	97.53041
2	0.981	BB S	0.0127	7033.85254	8673.91699	2.17474
3	1.081	BV T	0.0122	1.10882	1.51262	0.00034
4	1.125	PV T	0.0162	3.13165	2.81476	0.00097
5	1.189	PB T	0.0113	2.70738	3.91760	0.00084
6	1.664	BB	0.0215	2.08240	1.52810	0.00064
7	1.857	BV	0.0184	2.96270	2.39690	0.00092
8	1.896	VB	0.0242	14.86317	8.92364	0.00460
9	2.303		0.0341	926.79431	401.80081	0.28655

Totals : 3.23434e5 3.41658e5

Instrument 1 7/6/2018 10:02:38 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-03 19-52-26\088F0107.D Sample Name: cinnamaldehyde

Acq. Operator :	Zach Taylor	Seq. Line : 1
Acq. Instrument :	Instrument 1	Location : Vial 88
Injection Date :	03-Jun-18, 20:17:39	Inj : 7
		Inj Volume : 1 µl
Acq. Method :	C:\Chem32\1\DATA\ZAC	H2018\ZACH 2018-06-03 19-52-26\Z4.M
Last changed :	6/3/2018 6:09:38 PM	by Zach Taylor
Analysis Method :	C:\CHEM32\1\METHODS\	Z4.M
Last changed :	7/6/2018 9:23:05 PM	by Zach Taylor
	(modified after load	ing)
Method Info :	Alditol lab.	



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000

Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak Re	tTime	Type	Width	Area	Height	Area
# [min]		[min]	[pA*s]	[pA]	8
		-				
ı	0.656	BV S	0.0162	3.17490e5	3.03073e5	97.56137
2	0.982	VB S	0.0131	7093.67334	8387.19824	2.17981
3	1.125	BB	0.0167	3.07941	2.66693	0.00095
4	1.190	BB	0.0158	3.95129	3.66165	0.00121
5	1.664	BB	0.0228	2.28439	1.62118	0.00070
6	1.858	BV	0.0194	2.59300	2.07655	0.00080
7	1.897	VB	0.0262	13.62961	7.70607	0.00419
8	2.302	BB	0.0338	816.71356	347.40433	0.25097

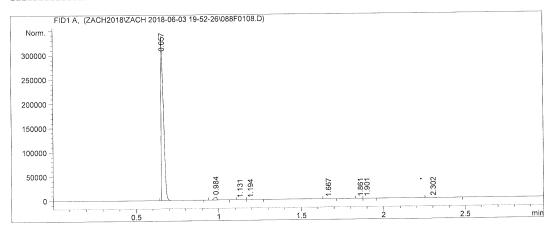
Totals :

3.25426e5 3.11825e5

Instrument 1 7/6/2018 10:02:40 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-03 19-52-26\088F0108.D Sample Name: cinnamaldehyde

Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument	: Instrument 1	Location : Vial 88
Injection Date	: 03-Jun-18, 20:21:40	Inj: 8
		Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH201	L8\ZACH 2018-06-03 19-52-26\Z4.M
Last changed	: 6/3/2018 6:09:38 PM by 2	Mach Taylor
Analysis Method	: C:\CHEM32\1\METHODS\Z4.N	1
Last changed	: 7/6/2018 9:23:05 PM by 2	Zach Taylor
	(modified after loading)	I
Method Info	: Alditol lab.	



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

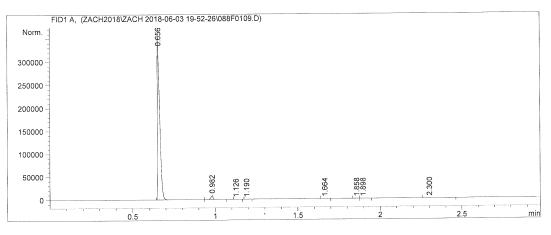
Signal 1: FID1 A,

Peak Re #	tTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.657	BB	s	0.0189	3.46812e5	3.03240e5	97.87212
2	0.984	BB	S	0.0192	6880.60254	6290.41406	1.94174
3	1.131	вv		0.0177	2.60427	2.21817	0.00073
4	1.194	VB		0.0180	3.71587	2.93405	0.00105
5	1.667	BB		0.0272	2.30833	1.34349	0.00065
6	1.861	вv		0.0214	2.73713	1.92414	0.00077
7	1.901	VB		0.0286	11.10393	5.63766	0.00313
8	2.302	BB		0.0353	637.10767	257.32297	0.17980
Totals	:				3.54352e5	3.09802e5	

Instrument 1 7/6/2018 10:02:42 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-03 19-52-26\088F0109.D Sample Name: cinnamaldehyde

	= =		======		==:	
Acq. Operator	:	Zach Taylor		Seq. Line		
Acq. Instrument	:	Instrument 1		Location	:	Vial 88
Injection Date	:	03-Jun-18, 20:25:43		Inj	:	9
				Inj Volume		
Acq. Method	:	C:\Chem32\1\DATA\ZACH	H2018\Z#	ACH 2018-06-03	3	19-52-26\Z4.M
Last changed	:	6/3/2018 6:09:38 PM 1	by Zach	Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\2	Z4.M			
Last changed	:	7/6/2018 9:23:05 PM b	by Zach	Taylor		
		(modified after load:	ing)			
Method Info	:	Alditol lab.				



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

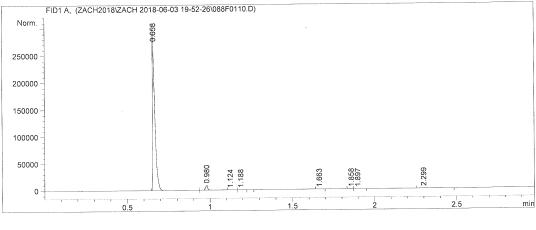
Signal 1: FID1 A,

Peak R #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
#* I		1 1	[(((,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	[pit 6]		
1	0.656	D17 0	0.0153	3.27016e5	3.38416e5	97.70140
2	0.656		0.0128	7127.47754	8633.36133	2.12945
	1.126		0.0128	2.88801	2.48152	0.00086
3	1.126		0.0176	4.08441	3.84153	0.00122
4	1.190		0.0130	2.22984	1.56962	0.00067
5	1.858		0.0191	2.46019	1,90340	0.00074
7	1.898		0.0273	9.34195	5.21326	0.00279
8	2.300		0.02/3	545.17212	235.61073	0.16288
0	2.300	00	0.0542	545.17212	2001020-0	
Totals	:			3.34710e5	3.47300e5	

Instrument 1 7/6/2018 10:02:43 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-03 19-52-26\088F0110.D Sample Name: cinnamaldehyde

= == =		
:		
:	Instrument 1 Location : Vial 88	
:	03-Jun-18, 20:29:43 Inj : 10	
	Inj Volume : 1 µl	
:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-03 19-52-26\Z4.M	
:	C:\CHEM32\1\METHODS\Z4.M	
:	7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)	
:	Alditol lab.	
	: : : :	<pre>: Instrument 1 Location : Vial 88 : 03-Jun-18, 20:29:43 Inj : 10 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-06-03 19-52-26\Z4.M : 6/3/2018 6:09:38 PM by Zach Taylor : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor</pre>



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

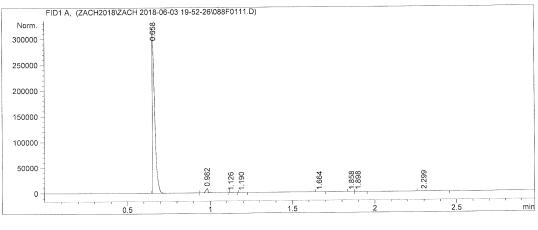
Signal 1: FID1 A,

Peak Re	etTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.658	вv	ຮ່	0.0152	2.81092e5	2.72263e5	97.00491
2	0.980	VB	S	0.0156	8054.66748	8727.49414	2.77967
3	1.124	вv	Х	0.0185	3.89141	3.12072	0.00134
4	1.188	VB	х	0.0183	5.24838	4.26749	0.00181
5	1.663	BB		0.0199	2.33919	1.71871	0.00081
6	1.858	ΒV		0.0206	2.41232	1.87038	0.00083
7	1,897	VB		0.0288	10.81087	5.63734	0.00373
8	2.299	BB		0.0362	599.54559	241.18242	0.20690
Totals	:				2.89771e5	2.81248e5	

Instrument 1 7/6/2018 10:02:45 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-06-03 19-52-26\088F0111.D Sample Name: cinnamaldehyde

	:=:		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	03-Jun-18, 20:33:46	Inj : 11
-			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZAC	H2018\ZACH 2018-06-03 19-52-26\Z4.M
Last changed		6/3/2018 6:09:38 PM	
Analysis Method	:	C:\CHEM32\1\METHODS\	Z4.M
Last changed	:	7/6/2018 9:23:05 PM	by Zach Taylor
		(modified after load	ing)
Method Info	:	Alditol lab.	



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & DilutionFactor with ISTDs

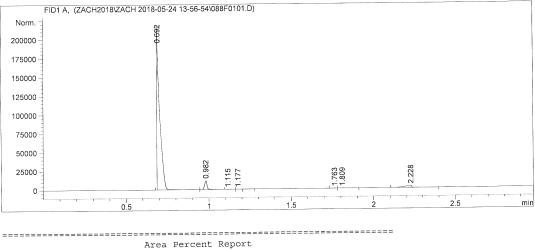
Signal 1: FID1 A,

Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.658	BV S	0.0168	3.20126e5	2.92528e5	97.46852
2	0.982	VB S	0.0156	7825.25293	8474.60156	2.38255
3	1.126	BB	0.0155	1.82379	1.85246	0.00056
4	1.190	BB	0.0172	4.38304	3.64200	0.00133
5	1.664	BB	0.0215	2.05355	1.43497	0.00063
6	1.858	вV	0.0182	1.98900	1.63931	0.00061
7	1.898	VB	0.0285	8.42092	4.28454	0.00256
8	2.299	BB	0.0358	470.49869	191.76689	0.14325
Totals	:			3.28441e5	3.01207e5	

Instrument 1 7/6/2018 10:02:47 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 13-56-54\088F0101.D Sample Name: t-cinnama-1

Acq. Operator	: Zach Taylor	Seq. Line : 1						
Acq. Instrument		Location : Vial 88						
	: 24-May-18, 13:57:54	Inj : 1						
	1	Inj Volume : 1 µl						
Acg. Method	: C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-24 13-56-54\Z1.M						
	: 5/23/2018 2:06:46 PM by							
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M							
	: 7/6/2018 9:23:05 PM by Z							
5	(modified after loading)							
Method Info	: Alditol lab.							



Sorted By	:	Signal
Multiplier	:	1.0000
Dilution	:	1.0000
Use Multiplier	& Dilution	Factor with ISTDs

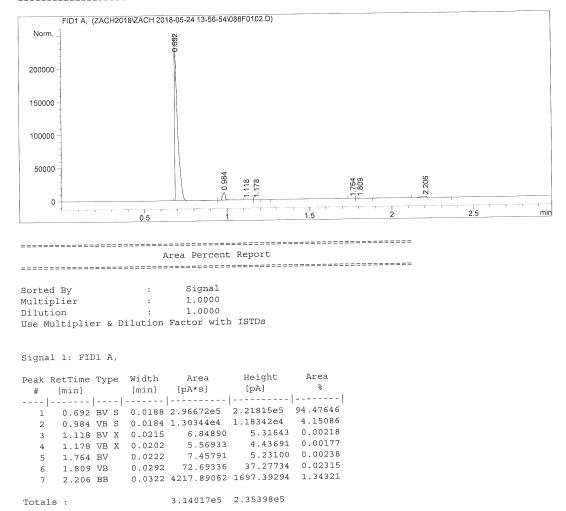
Signal 1: FID1 A,

Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area ۴
1	0.692	bv s	0.0172	2.57383e5	1.92358e5	92.77103
2	0.982	VB S	0.0177	1.21035e4	1.16539e4	4.36257
3	1.115	ву х	0.0184	33.07580	28.43433	0.01192
4	1.177	VB X	0.0199	5.46386	4.46583	0.00197
5	1.763	вv	0.0224	15.30651	10.61726	0.00552
6	1.809	VB	0.0289	155.37617	80.63913	0.05600
7	2.228	BB	0.0391	7743.28857	2514.91162	2.79099
Totals	:			2.77439e5	2.06651e5	

Instrument 1 7/6/2018 10:03:51 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 13-56-54\088F0102.D Sample Name: t-cinnama-1

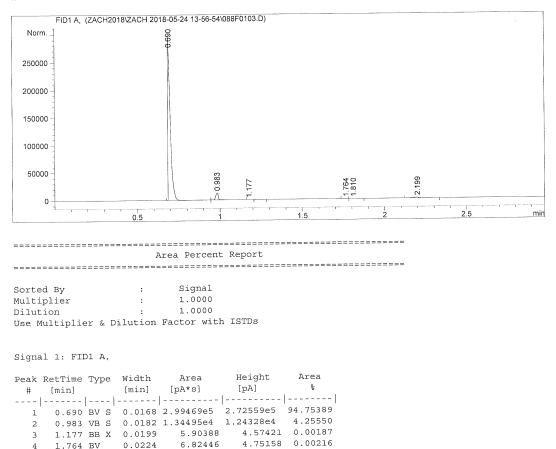
пріе Name: с-сіппа	pie Name: t-cimiama-i						
Acq. Operator	: Zach Taylor	Seq. Line : 1					
Acq. Instrument		Location : Vial 88					
Injection Date	: 24-May-18, 14:01:55	Inj : 2					
2	-	Inj Volume : 1 µl					
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\Z						
Last changed	: 5/23/2018 2:06:46 PM by Zac	h Taylor					
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M						
Last changed	: 7/6/2018 9:23:05 PM by Zach	Taylor					
	(modified after loading)						
Method Info	: Alditol lab.						



Instrument 1 7/6/2018 10:03:53 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 13-56-54\088F0103.D Sample Name: t-cinnama-1

Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 3 Injection Date : 24-May-18, 14:05:57 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 13-56-54\Z1.M Acq. Method : 5/23/2018 2:06:46 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



22.98606 0.01418

0.0224

0.0299

3.16049e5 2.86344e5 Totals :

0.0352 3073.27808 1319.78687 0.97240

6.82446

44.81541

Instrument 1 7/6/2018 10:03:55 PM Zach Taylor

1.764 BV

1.810 VB

2.199 BB

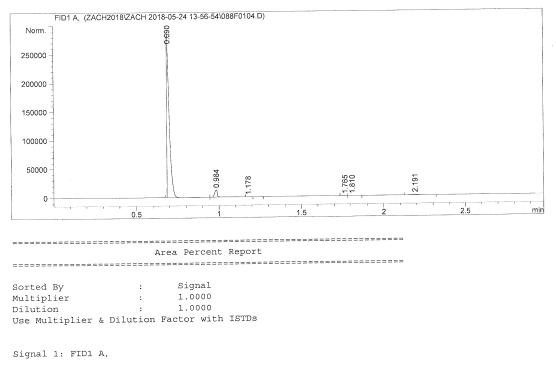
4

5

6

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 13-56-54\088F0104.D Sample Name: t-cinnama-1

ipre Mame: c-crime	uu	a 1					
Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 88				
Injection Date	:	24-May-18, 14:09:57	Inj: 4				
5			Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZAC	CH 2018-05-24 13-56-54\Z1.M				
Last changed		5/23/2018 2:06:46 PM by Zach	Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M					
Last changed	:	7/6/2018 9:23:05 PM by Zach '	Taylor				
5		(modified after loading)					
Method Info	:	Alditol lab.					

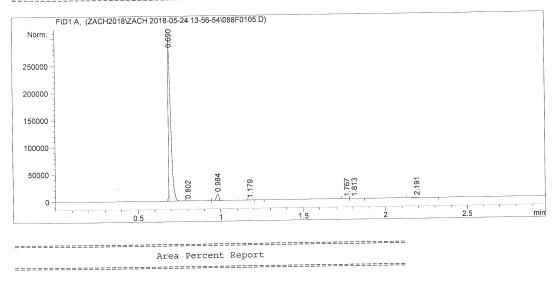


Peak Re	etTime	Type	Width	Area	Height	Area
	[min]		[min]	[pA*s]	[pA]	8
		-				
ı	0.690	BV S	0.0167	3.03400e5	2.79192e5	95.08464
2	0.984	VB S	0.0182	1.34808e4	1.24629e4	4.22484
3	1.178	вв х	0.0209	6.16492	4.68858	0.00193
4	1.765		0.0225	6.22233	4.30286	0.00195
5	1.810	VB	0.0295	28.33416	14.80058	0.00888
6	2.191	BB	0.0345	2162.59839	952.87091	0.67775
Totals	:			3.19084e5	2.92632e5	

Instrument 1 7/6/2018 10:03:57 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 13-56-54\088F0105.D Sample Name: t-cinnama-1

ирте маше: с-стппа	pie Name: C-Cinnama-i						
Acq. Operator	: Zach Taylor	Seq. Line : 1					
Acq. Instrument	: Instrument 1	Location : Vial 88					
Injection Date	: 24-May-18, 14:14:01	Inj : 5					
		Inj Volume : 1 µl					
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZAC						
Last changed	: 5/23/2018 2:06:46 PM by Zach	Taylor					
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M						
Last changed	: 7/6/2018 9:23:05 PM by Zach 5	Taylor					
_	(modified after loading)						
Method Info	: Alditol lab.						



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

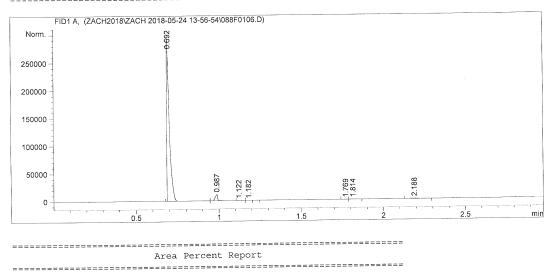
Signal 1: FID1 A,

Peak Re # [tTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.690	BV	ຮ່	0.0163	2.97274e5	2.82425e5	95.19717
2	0.802	вv	х	0.1050	31.29093	3.64244	0.01002
3	0.984	VB		0.0174	1.29529e4	1.19752e4	4.14795
4	1.179	BB	x	0.0213	5.96308	4.42402	0.00191
5	1.767			0.0237	5.84225	3.94386	0.00187
6		VB		0.0304	24.70714	12.43361	0.00791
7	2.191	. –		0.0355	1977.17688	862.66998	0.63316
,	2.171	22		• • • • • • •			
Totals	:				3.12272e5	2.95287e5	

Instrument 1 7/6/2018 10:03:59 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 13-56-54\088F0106.D Sample Name: t-cinnama-1

Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument			Location : Vial 88			
		24-May-18, 14:18:03	Inj : 6			
		1	Inj Volume : 1 µl			
Acg. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-24 13-56-54\Z1.M			
Last changed	:	5/23/2018 2:06:46 PM by	Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.N	i de la constante de			
Last changed	:	7/6/2018 9:23:05 PM by 2	ach Taylor			
2		(modified after loading)				
Method Info	:	Alditol lab.				



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & DilutionFactor with ISTDs

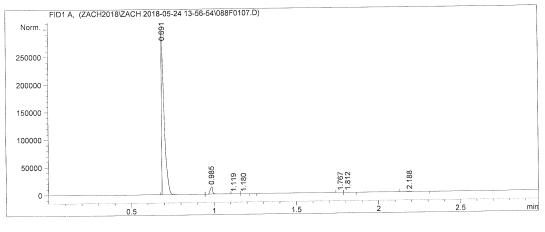
Signal 1: FID1 A,

Peak Re # [tTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
ı	0.692	вv	s	0.0168	3.15256e5	2.71260e5	95.96780
2	0.987	VB	s	0.0174	1.18206e4	1.16650e4	3.59834
3	1.122	BV	x	0.0204	3.29956	2.69078	0.00100
4	1.182			0.0176	4.99529	4.27345	0.00152
5	1.769			0.0209	4.68633	3.39480	0.00143
6	1.814			0.0278	16.44309	8.97167	0.00501
7	2.188			0.0340	1395.78748	645.04083	0.42489
,	2.100	22					
Totals	:				3.28502e5	2.83589e5	

Instrument 1 7/6/2018 10:04:00 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 13-56-54\088F0107.D Sample Name: t-cinnama-1

Acq. Operator							
Acq. Instrument	Instrument 1 Location : Vial	88					
Injection Date	24-May-18, 14:22:05 Inj: 7						
5	Inj Volume : 1 µl						
Acq. Method Last changed Analysis Method Last changed	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 13-56 5/23/2018 2:06:46 PM by Zach Taylor C:\CHEM32\1\METHODS\Z4.M 7/6/2018 9:23:05 PM by Zach Taylor	-54\Zl.M					
Method Info	(modified after loading) Alditol lab.						



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & DilutionFactor with ISTDs

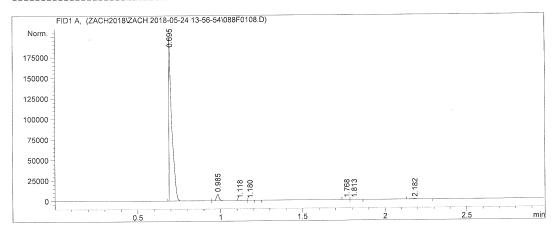
Signal 1: FID1 A,

Peak Re # (tTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.691	BV S	0.0172	3.22459e5	2.85186e5	95.55752
2	0.985	VB S	0.0177	1.34578e4	1.29901e4	3.98809
3	1.119	BV X	0.0204	4.58363	3.43012	0.00136
4	1.180	VB X	0.0181	6.01068	4.95794	0.00178
5	1.767		0.0218	5.24649	3.76696	0.00155
6	1.812		0.0258	18.76834	10.86066	0.00556
7			0.0331	1498.72815	697.46130	0.44413
Totals	:			3.37450e5	2.98896e5	

Instrument 1 7/6/2018 10:04:02 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 13-56-54\088F0108.D Sample Name: t-cinnama-1

ipie Name: c-ciima	pre Maille: C-Crimalia-1						
Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 88				
Injection Date	:	24-May-18, 14:26:05	Inj: 8				
			Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-24 13-56-54\Z1.M				
Last changed	:	5/23/2018 2:06:46 PM by	y Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M				
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor				
		(modified after loading	g)				
Method Info	:	Alditol lab.					



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

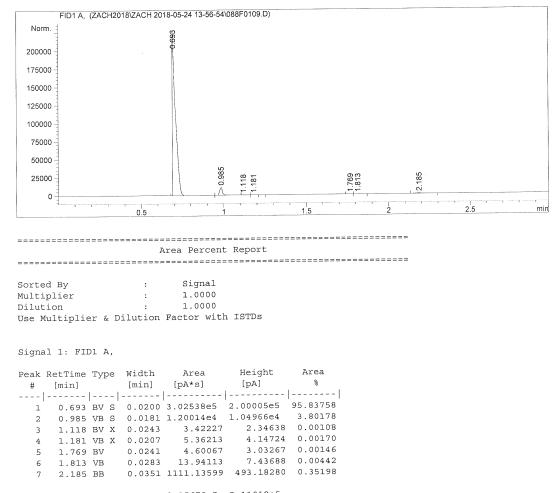
Signal 1: FID1 A,

Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.695	вv s	0.0173	2.37834e5	1.86033e5	96.15933
2	0.985	VB S	0.0172	8552.06055	8068.73389	3.45770
3	1.118	вv х	0.0222	2.90458	2.18283	0.00117
4	1.180	VB X	0.0182	3.52823	2.89084	0.00143
5	1.768	BV	0.0223	3.03157	2.11226	0.00123
6	1.813	VB	0.0264	12.00105	6.74471	0.00485
7	2.182	BB	0.0347	925.74359	416.42566	0.37429
Totals	:			2.47334e5	1.94532e5	

Instrument 1 7/6/2018 10:04:04 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 13-56-54\088F0109.D Sample Name: t-cinnama-1

Taylor		
iment 1	Location	: Vial 88
	Inj	: 9
	Inj Volume	
em32\1\DATA\ZACH20	18\ZACH 2018-05-24	13-56-54\Z1.M
EM32\1\METHODS\Z4.1	М	
018 9:23:05 PM by 1	Zach Taylor	
fied after loading)	
ol lab.		
	<pre>ument 1 y-18, 14:30:06 em32\1\DATA\ZACH20 2018 2:06:46 PM by SM32\1\METHODS\Z4.3 018 9:23:05 PM by Fied after loading</pre>	Imment 1 Location 14:30:06 Inj Inj Volume Inj Volume em32\1\DATA\ZACH2018\ZACH 2018-05-24 2018 2:06:46 PM by Zach Taylor 2018 2:06:46 PM by Zach Taylor 2013 2\1\METHODS\Z4.M 2018 9:23:05 PM by Zach Taylor 5 Fied after loading) 5

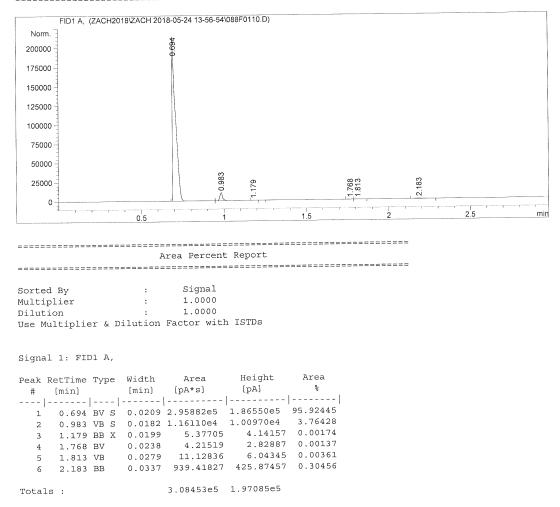


Totals : 3.15678e5 2.11012e5

Instrument 1 7/6/2018 10:04:06 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 13-56-54\088F0110.D Sample Name: t-cinnama-1

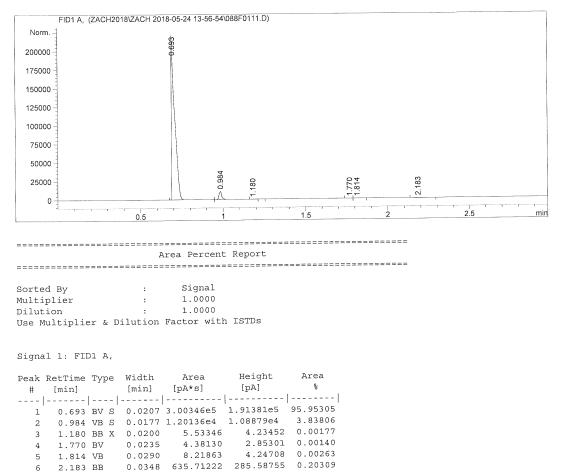
	-			
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	24-May-18, 14:34:06	Inj : 10	
		-	Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-24 13-56-54\Z1.	М
Last changed		5/23/2018 2:06:46 PM by		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	1	
Last changed	:	7/6/2018 9:23:05 PM by Z	ach Taylor	
5		(modified after loading)		
Method Info	:	Alditol lab.		
Acq. Instrument Injection Date Acq. Method Last changed Analysis Method Last changed	:::::::::::::::::::::::::::::::::::::::	<pre>Instrument 1 24-May-18, 14:34:06 C:\Chem32\1\DATA\ZACH201 5/23/2018 2:06:46 PM by C:\CHEM32\1\METHODS\Z4.M 7/6/2018 9:23:05 PM by Z (modified after loading)</pre>	Inj : 10 Inj Volume : 1 µl .8\ZACH 2018-05-24 13-56-54\Z1.J Zach Taylor 1 Kach Taylor	Ņ



Instrument 1 7/6/2018 10:04:09 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 13-56-54\088F0111.D Sample Name: t-cinnama-1

Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument	: Instrument 1	Location : Vial 88
Injection Date	: 24-May-18, 14:38:07	Inj : 11
-	-	Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH201	.8\ZACH 2018-05-24 13-56-54\Z1.M
Last changed	: 5/23/2018 2:06:46 PM by	Zach Taylor
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	1
Last changed	: 7/6/2018 9:23:05 PM by 2	Aach Taylor
-	(modified after loading)	
Method Info	: Alditol lab.	

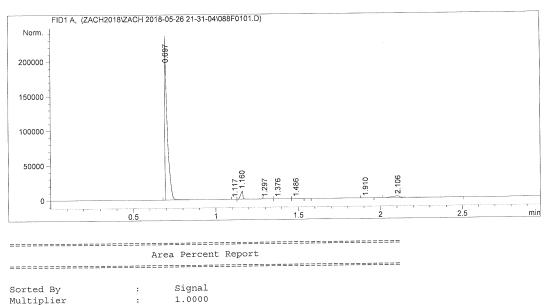


Totals : 3.13013e5 2.02566e5

Instrument 1 7/6/2018 10:04:11 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 21-31-04\088F0101.D Sample Name: hydrocinnama

Acq. Operator :	: Zach Taylor	Seq. Line : 1
Acq. Instrument :	: Instrument 1	Location : Vial 88
Injection Date :	: 26-May-18, 21:32:37	Inj: 1
5	*	Inj Volume : 1 µl
Acq. Method	C:\Chem32\1\DATA\ZACH2018	3\ZACH 2018-05-26 21-31-04\Z1.M
Last changed :	: 5/26/2018 9:31:03 PM by 2	Sach Taylor
Analysis Method :	: C:\CHEM32\1\METHODS\Z4.M	
Last changed	: 7/6/2018 9:23:05 PM by Za	ach Taylor
-	(modified after loading)	
Method Info	: Alditol lab.	



Signal 1: FID1 A,

Dilution

Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.697	BV S	0.0153	2.28889e5	1.94879e5	92.16166
2	1.117	BV T	0.0140	14.69264	17.15546	0.00592
3	1.160	VB S	0.0149	1.10742e4	1.18072e4	4.45900
4	1.297	вv х	9.48e-3	1.15366	2.02866	0.00046
5	1.376	vv x	0.0286	12.39443	6.06963	0.00499
6	1.486	VB T	0.0293	5.81190	2.95818	0.00234
7	1.910	BB	0.0270	3.59828	2.03601	0.00145
8	2.106	BB	0.0521	8355.12988	2339.01489	3.36418
Totals	:			2.48355e5	2.09056e5	

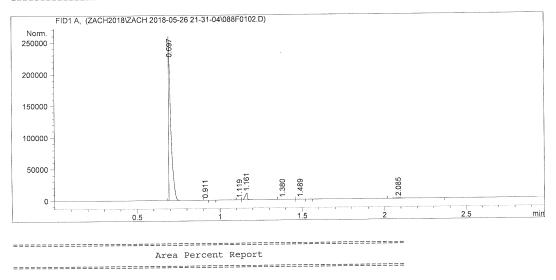
1.0000

: Use Multiplier & Dilution Factor with ISTDs

Instrument 1 7/6/2018 10:05:57 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 21-31-04\088F0102.D Sample Name: hydrocinnama

	======		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
		26-May-18, 21:36:37	Inj: 2
5		-	Inj Volume : 1 µl
Acg. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-26 21-31-04\Z1.M
Last changed	:	5/26/2018 9:31:03 PM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	1
Last changed	:	7/6/2018 9:23:05 PM by 2	Aach Taylor
		(modified after loading)	
Method Info	:	Alditol lab.	



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

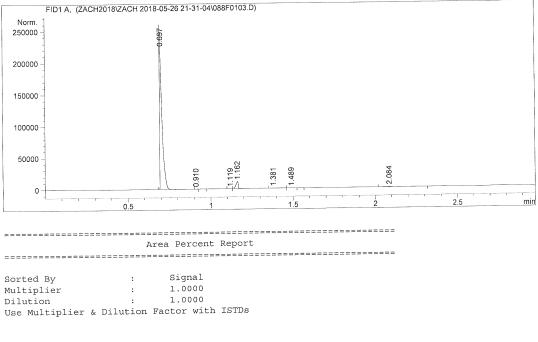
Signal 1: FID1 A,

Peak Re # [tTime [min]	тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.697	BB	s	0.0150	2.41430e5	2.23374e5	95.16725
2	0.911	BB	Х	0.0135	1.62938	2.00717	0.00064
3	1.119	ΒV		0.0165	19.46645	18.16783	0.00767
4	1.161	VB	s	0.0154	9978.25586	1.02071e4	3.93325
5	1.380	PV	т	0.0354	5.86348	2.73532	0.00231
6	1.489	PB	т	0.0283	3.99285	2.29145	0.00157
7	2.085	BB		0.0585	2250.98315	555.15216	0.88730
Totals					2.53690e5	2.34162e5	

Instrument 1 7/6/2018 10:06:00 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 21-31-04\088F0103.D Sample Name: hydrocinnama

pie Name: nydrocimama						
Acq. Operator	: Zach Taylor	Seq. Line : 1				
Acq. Instrument	: Instrument 1	Location : Vial 88				
Injection Date	: 26-May-18, 21:40:38	Inj: 3				
5	-	Inj Volume : 1 µl				
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZA	ACH 2018-05-26 21-31-04\Z1.M				
Last changed	: 5/26/2018 9:31:03 PM by Zach	n Taylor				
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M					
Last changed	: 7/6/2018 9:23:05 PM by Zach	Taylor				
	(modified after loading)					
Method Info	: Alditol lab.					



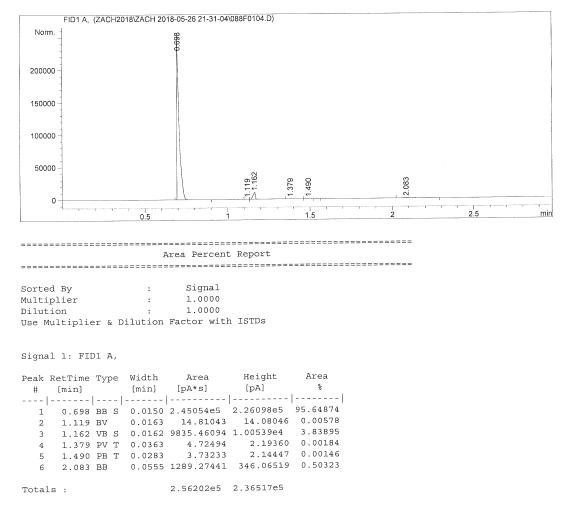
Signal 1: FID1 A,

Peak R	etTime	Type	е	Width	Area	Height	Area
#	[min]			[min]	[pA*s]	[pA]	8
			- -				
1	0.697	BB :	s	0.0149	2.39208e5	2.22618e5	95.24919
2	0.910	BB 3	Х	0.0127	1.36830	1.79508	0.00054
3	1.119	BV		0.0164	17.49319	16.51284	0.00697
4	1.162	VB a	s	0.0161	1.02309e4	1.06046e4	4.07381
5	1.381	PV '	т	0.0360	5.78369	2.63805	0.00230
6	1.489	PB '	Т	0.0285	4.29511	2.35807	0.00171
7	2.084	BB		0.0554	1671.26025	448.78516	0.66547
Totals	:				2.51139e5	2.33695e5	

Instrument 1 7/6/2018 10:06:02 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 21-31-04\088F0104.D Sample Name: hydrocinnama

Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	26-May-18, 21:44:38	Inj : 4			
			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-26 21-31-04\Z1.M			
Last changed	:	5/26/2018 9:31:03 PM	by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M			
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor			
		(modified after loadi	ng)			
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 10:06:04 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 21-31-04\088F0105.D Sample Name: hydrocinnama Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Injection Date : 26-May-18, 21:48:39 Inj: 5 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 21-31-04\Z1.M Acq. Method Last changed : 5/26/2018 9:31:03 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-26 21-31-04\088F0105.D) Norm. 0.697 250000 200000 150000 100000 -50000 490 80 0 0.5 2.5 min Area Percent Report Sorted By . Signal Multiplier 1.0000 : Dilution 1.0000 : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area [pA] es. [min] [pA*s] # [min] 0.697 BB S 0.0166 2.64524e5 2.30401e5 96.10121 1 0.0159 12.20542 12.00999 0.00443 1.119 BV 2 1.161 VB S 0.0146 9712.05762 9950.14551 3.52837 3 1.74777 0.00134 1.379 PV T 0.0358 3.68408 4 1.490 PB T 0.0300 4.54909 2.32417 0.00165 5 0.0526 999.16010 281.48999 0.36299 6 2.081 BB 2.75256e5 2.40649e5 Totals : _____

Instrument 1 7/6/2018 10:06:06 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 21-31-04\088F0106.D Sample Name: hydrocinnama Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 26-May-18, 21:52:39 Inj: 6 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 21-31-04\Z1.M Acq. Method : 5/26/2018 9:31:03 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-26 21-31-04\088F0106.D) Norm. 0.698 200000 175000 150000 125000 100000 75000 50000 25000 075 2 0 2.5 min 0.5 Area Percent Report Sorted By : Signal 1.0000 Multiplier : Dilution ÷ 1.0000 Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area [pA*s] [pA] 8 # [min] [min] 1 0.698 BV S 0.0172 2.57856e5 1.93279e5 95.98677 7.52854 0.00240 1.118 BV T 0.0148 6.43877 2 1.160 VB S 0.0172 9834.47852 9276.48145 3.66088 3 1.298 BV X 0.0102 1.00573 1.64139 0.00037 4 2.11490 0.00175 1.376 VV X 0.0307 4.69793 5 4.79736 2.48417 0.00179

Totals :

6

7

2.68637e5 2.02825e5

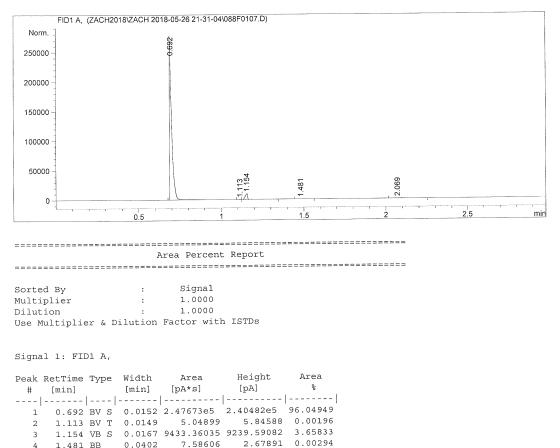
2.075 BB 0.0551 929.62451 256.18549 0.34605

Instrument 1 7/6/2018 10:06:07 PM Zach Taylor

1.487 VB T 0.0289

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 21-31-04\088F0107.D Sample Name: hydrocinnama

	:=:		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	26-May-18, 21:56:40	Inj : 7
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-05-26 21-31-04\Z1.M
Last changed	:	5/26/2018 9:31:03 PM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\2	24.M
Last changed	:	7/6/2018 9:23:05 PM k	by Zach Taylor
		(modified after loadi	ing)
Method Info	:	Alditol lab.	



5 Totals :

4

2.57859e5 2.49941e5

2.069 BB 0.0522 740.77869 210.98486 0.28728

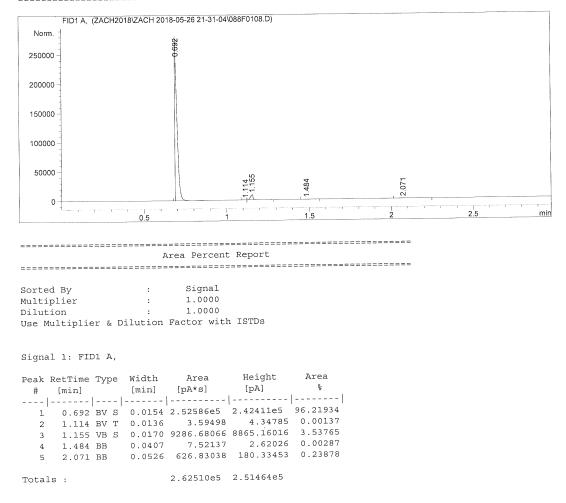
_____ *** End of Report ***

Instrument 1 7/6/2018 10:06:09 PM Zach Taylor

1.481 BB 0.0402 7.58606

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 21-31-04\088F0108.D Sample Name: hydrocinnama

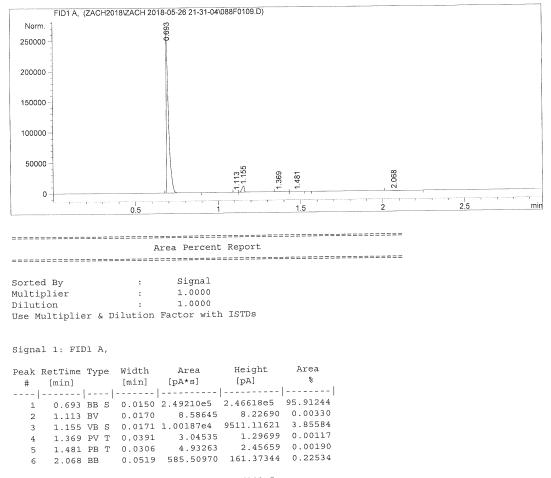
Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument	: Instrument 1	Location : Vial 88
Injection Date	: 26-May-18, 22:00:40	Inj: 8
5	-	Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH2018	\ZACH 2018-05-26 21-31-04\Z1.M
Last changed	: 5/26/2018 9:31:03 PM by Z	ach Taylor
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	
Last changed	: 7/6/2018 9:23:05 PM by Za	ch Taylor
5	(modified after loading)	
Method Info	: Alditol lab.	



Instrument 1 7/6/2018 10:06:11 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 21-31-04\088F0109.D Sample Name: hydrocinnama

Acq. Operator	: Zach Taylor	Seq. Line : 1				
Acq. Instrument	: Instrument 1	Location : Vial 88				
Injection Date	: 26-May-18, 22:04:41	Inj: 9				
2	-	Inj Volume : 1 µl				
Acq. Method	: C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-26 21-31-04\Z1.M				
Last changed	: 5/26/2018 9:31:03 PM by	Zach Taylor				
Analysis Method	: C:\CHEM32\1\METHODS\Z4.	M				
	: 7/6/2018 9:23:05 PM by					
	(modified after loading)				
Method Info	: Alditol lab.					

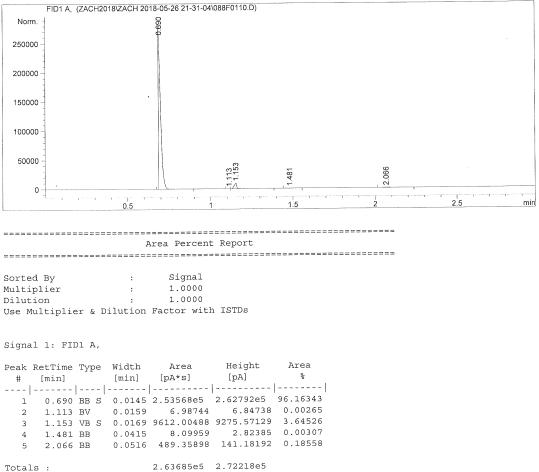


Totals : 2.59831e5 2.56303e5

Instrument 1 7/6/2018 10:06:13 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 21-31-04\088F0110.D Sample Name: hydrocinnama

:	Zach Taylor	Seq. Line : 1			
:	Instrument 1	Location : Vial 88			
:	26-May-18, 22:08:41	Inj : 10			
		Inj Volume : 1 µl			
:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-26 21-31-04\Z1.M			
:	5/26/2018 9:31:03 PM by Zach Taylor				
:	C:\CHEM32\l\METHODS\Z4.M				
:	7/6/2018 9:23:05 PM by	Zach Taylor			
	(modified after loading	•)			
:	Alditol lab.				
	::	: 5/26/2018 9:31:03 PM by : C:\CHEM32\1\METHODS\Z4. : 7/6/2018 9:23:05 PM by			



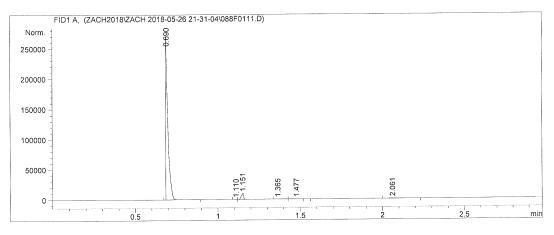
2.63685e5 2.72218e5

_____ *** End of Report ***

Instrument 1 7/6/2018 10:06:14 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 21-31-04\088F0111.D Sample Name: hydrocinnama

pre name. ny droermana					
Acq. Operator	:	Zach Taylor	Seq. Line : 1		
Acq. Instrument	;	Instrument 1	Location : Vial 88		
Injection Date	:	26-May-18, 22:12:43	Inj : 11		
			Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZAC	CH 2018-05-26 21-31-04\Z1.M		
Last changed		5/26/2018 9:31:03 PM by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M			
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor			
		(modified after loading)			
Method Info	:	Alditol lab.			



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Туре		dth in]	Area [pA*s]		Height [pA]	Area %	
						- -			-
1	0.690	BB \$	s'o.	0146	2.46963e5	2	2.52268e5	96.0140	1
2	1.110	ΒV	Ο.	0171	7.2438	0	7.05123	0.0028	2
3	1.151	VB S	50.	0167	9791.0429	7 9	9576.05273	3.8065	4
4	1.365	PV ?	го.	0373	2.6159	2	1.16738	0.0010	2
5	1.477	PB '	г о.	0298	4.6233	8	2.38435	0.0018	0
6	2.061	BB	Ο.	0534	447.0739	7	126.09729	0.1738	1

Totals : 2.57216e5 2.61981e5

Instrument 1 7/6/2018 10:06:16 PM Zach Taylor

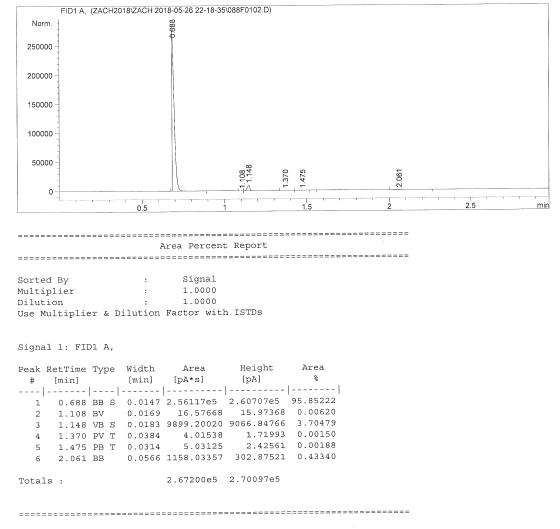
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 22-18-35\088F0101.D Sample Name: hydrocinnama 1 Seq. Line : Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 26-May-18, 22:19:36 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 22-18-35\Z1.M Acq. Method : 5/26/2018 9:31:03 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-26 22-18-35\088F0101.D) Norm. 0.689 250000 200000 150000 100000 50000 074 476 80 901 N ¢ 0 2.5 min 0.5 1 5 _____ Area Percent Report ____ Sorted By : Signal Multiplier 1.0000 : Dilution 1.0000 Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area [pA*s] [pA] 8 # [min] [min] 1 0.689 BB S 0.0167 2.56648e5 2.36455e5 94.89619 1.97326 0.00069 1.86742 0.901 BB X 0.0158 2 0.0171 18.92253 0.00737 19.92980 3 1.108 BV 1.149 VB S 0.0171 1.00311e4 9496.81543 3.70900 4
 1.369
 PV T
 0.0333
 5.53081
 2.72102
 0.00205

 1.476
 PB T
 0.0319
 4.90527
 2.47352
 0.00181
 5 6 2.074 BB 0.0494 3740.04077 1167.80750 1.38289 7 2.70452e5 2.47146e5 Totals :

Instrument 1 7/6/2018 10:06:24 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 22-18-35\088F0102.D Sample Name: hydrocinnama

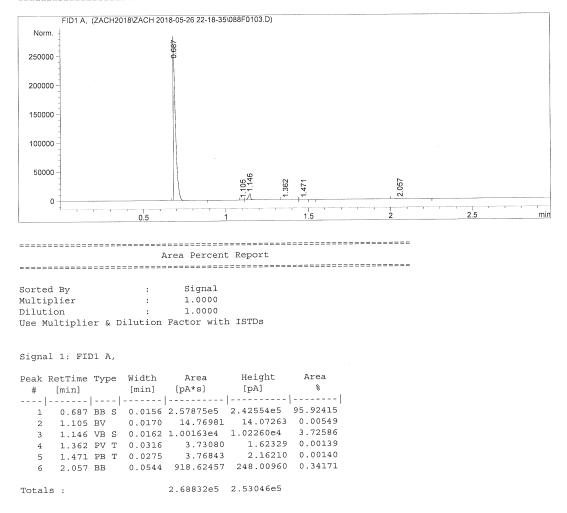
_	-				
	Acq. Operator	:	Zach Taylor Seq. Line : 1		
	Acq. Instrument	:	Instrument 1 Location : Vial 88		
	Injection Date	:	26-May-18, 22:23:37 Inj: 2		
	-		Inj Volume : 1 µl		
	Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-26 22-18-35\Z1.M		
	Last changed	:	5/26/2018 9:31:03 PM by Zach Taylor		
	Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M		
	Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor		
			(modified after loading)		
	Method Info	:	Alditol lab.		



Instrument 1 7/6/2018 10:06:26 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 22-18-35\088F0103.D Sample Name: hydrocinnama

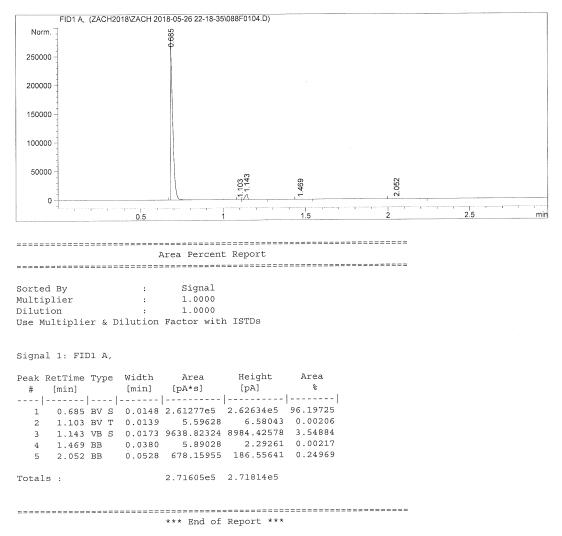
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	26-May-18, 22:27:36	Inj : 3	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-26 22-18-35\Z1.M	
Last changed	:	5/26/2018 9:31:03 PM by Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M		
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor	
		(modified after loadin	g)	
Method Info	:	Alditol lab.		



Instrument 1 7/6/2018 10:06:28 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 22-18-35\088F0104.D Sample Name: hydrocinnama

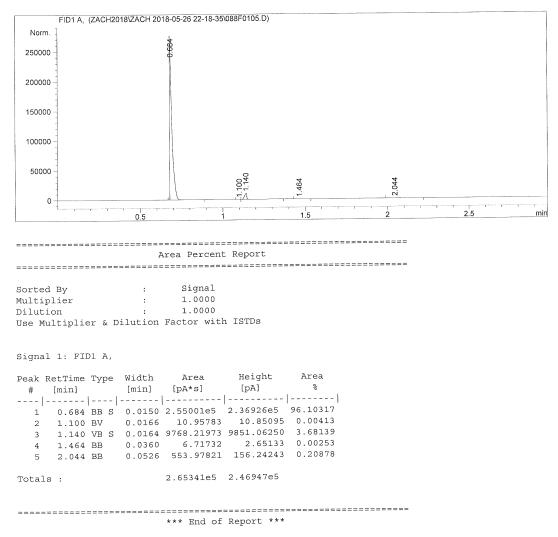
Acq. Operator	:	Zach Taylor	Seq. Line : 1		
Acq. Instrument	:	Instrument 1	Location : Vial 88		
Injection Date	:	26-May-18, 22:31:38	Inj: 4		
			Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-26 22-18-35\Z1.M		
Last changed	:	5/26/2018 9:31:03 PM by	Zach Taylor		
Analysis Method	:	$C: \ CHEM32 \ 1 \ ETHODS \ Z4$.	M		
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor		
		(modified after loading)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 10:06:30 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 22-18-35\088F0105.D Sample Name: hydrocinnama

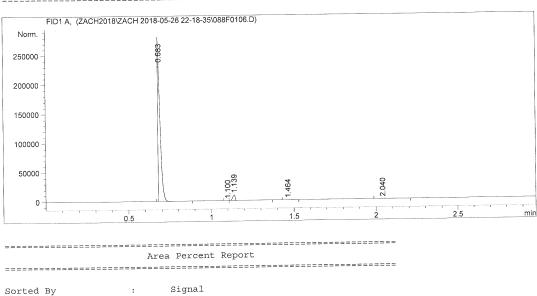
Acq. Operator	:	Zach Taylor	Seq. Line : 1		
Acq. Instrument	:	Instrument 1	Location : Vial 88		
Injection Date	:	26-May-18, 22:35:38	Inj : 5		
5			Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-26 22-18-35\Z1.M		
Last changed	:	5/26/2018 9:31:03 PM	by Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M		
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor		
		(modified after loadi	ng)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 10:06:31 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 22-18-35\088F0106.D Sample Name: hydrocinnama

ipie Name: nyuroci	lillallia	
Acq. Operator	. Duchi iuyioi +	Line : 1
Acq. Instrument	: Instrument 1 Locat	tion : Vial 88
Injection Date	: 26-May-18, 22:39:39	Inj: 6
2		lume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-	05-26 22-18-35\Z1.M
Last changed	: 5/26/2018 9:31:03 PM by Zach Taylor	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	
Last changed	: 7/6/2018 9:23:05 PM by Zach Taylor	
	(modified after loading)	
Method Info	: Alditol lab.	



Signal 1: FID1 A,

Multiplier

Dilution

Peak RetTime # [min] 1 0.683 2 1.100 3 1.139 4 1.464	 BB S BV VB S	0.0163	Area [pA*s] 2.52106e5 8.45582 9568.06641 5.88822	Height [pA] 2.34506e5 8.49320 9254.76270 2.35419	Area % 96.21932 0.00323 3.65177 0.00225
5 2.040	BB	0.0497	323.42157	94.05947	0.12344
Totals :			2.62012e5	2,43866e5	

1.0000

1.0000

:

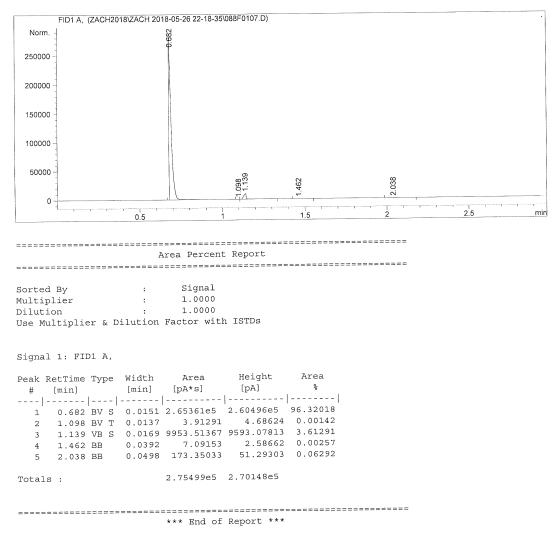
: Use Multiplier & Dilution Factor with ISTDs

*** End of Report ***

Instrument 1 7/6/2018 10:06:33 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 22-18-35\088F0107.D Sample Name: hydrocinnama

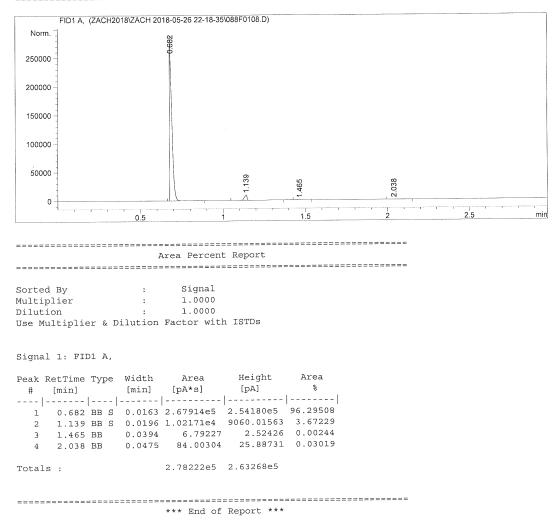
Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	26-May-18, 22:43:38	Inj : 7			
5			Inj Volume : 1 µl			
Acq. Method			018\ZACH 2018-05-26 22-18-35\Z1.M			
Last changed	:	5/26/2018 9:31:03 PM b	y Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M			
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor			
		(modified after loadin	g)			
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 10:06:35 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 22-18-35\088F0108.D Sample Name: hydrocinnama

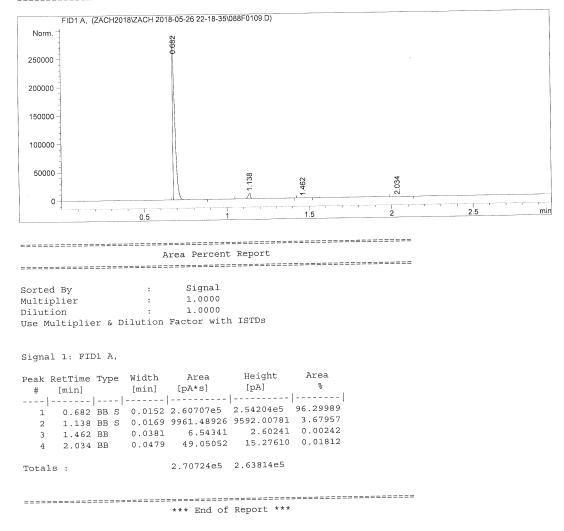
Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	26-May-18, 22:47:40	Inj: 8			
-			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-26 22-18-35\Z1.M			
Last changed	:	5/26/2018 9:31:03 PM]	by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M			
Last changed	:	7/6/2018 9:23:05 PM by	y Zach Taylor			
		(modified after loadi	ng)			
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 10:06:36 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 22-18-35\088F0109.D Sample Name: hydrocinnama

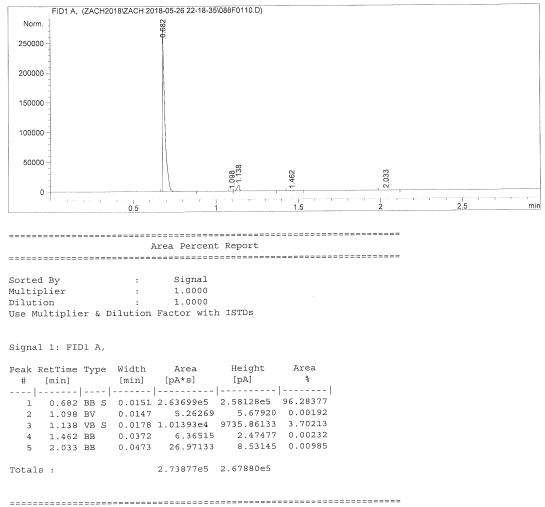
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument			Location : Vial 88
		26-May-18, 22:51:39	Inj : 9
-			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-26 22-18-35\Z1.M
Last changed	:	5/26/2018 9:31:03 PM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
		(modified after loading)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:06:38 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 22-18-35\088F0110.D Sample Name: hydrocinnama

Acg. Operator	:	Zach Taylor	Seq. Line :	1	
Acq. Instrument	:	Instrument 1	Location : '	Vial 88	
Injection Date	:	26-May-18, 22:55:42	Inj :	10	
			Inj Volume : 1		
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	18\ZACH 2018-05-26 2	2-18-35\Z1.M	
Last changed	:	5/26/2018 9:31:03 PM by	/ Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. М		
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor		
		(modified after loading	ł)		
Method Info	:	Alditol lab.			

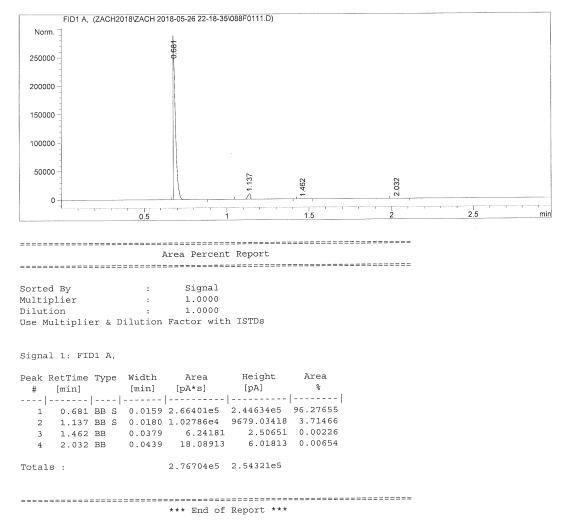


*** End of Report ***

Instrument 1 7/6/2018 10:06:40 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-26 22-18-35\088F0111.D Sample Name: hydrocinnama

================	= =		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	26-May-18, 22:59:42	Inj : 11
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	H2018\ZACH 2018-05-26 22-18-35\Z1.M
Last changed	;	5/26/2018 9:31:03 PM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\2	24.M
Last changed	:	7/6/2018 9:23:05 PM k	by Zach Taylor
		(modified after load:	ing)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:06:42 PM Zach Taylor

Instrument 1 7/6/2018 10:07:02 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\088F0101.D Sample Name: hydrocinnama Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 27-May-18, 15:56:17 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\Z1.M Acq. Method : 5/26/2018 9:31:03 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-27 15-55-06\088F0101.D) Norm. 0.673 250000 200000 150000 100000 50000 123 2.040 947 442 852 337 0 ····,··· 2.5 mir 0.5 _____ Area Percent Report Signal Sorted By : 1.0000 Multiplier : 1.0000 Dilution . Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area [pA] 8 [min] [pA*s] # [min] 0.673 BV S 0.0156 2.60068e5 2.43919e5 93.59969 1 1.084 BV T 0.0140 7.70719 9.90924 0.00277 2 1.123 VB S 0.0164 1.03968e4 1.04473e4 3.74185 3 4.92756 0.00427 1.337 BV X 0.0369 11.87423 4 2.71998 0.00228 1.442 VB X 0.0367 6.32790 5 0.0298 3.09561 1.60114 0.00111 1.852 BB 6 0.0550 7350.83936 1855.92151 2.64560 2.040 BB 7 6.71427 2.84509 0.00242 0.0371 8 2.947 BBA 2.77851e5 2.56244e5 Totals : Page 1 of 2

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\088F0102.D Sample Name: hydrocinnama Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 27-May-18, 16:00:18 Inj: 2 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\Z1.M Acq. Method : 5/26/2018 9:31:03 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-27 15-55-06\088F0102.D) Norm. 0.672 250000 200000 150000 100000 50000 020 336 441 ~ 0 2.5 min 0.5 Area Percent Report _____ Signal Sorted By : 1.0000 Multiplier : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area 8 [min] [pA*s] [pA] # [min] 1 0.672 BV S 0.0144 2.64132e5 2.75566e5 95.59092 1.082 BV T 0.0134 7.44439 9.22194 0.00269 2 1.122 VB S 0.0169 1.03913e4 1.00030e4 3.76068 3 1.96880 0.00163 2.40404 0.00241 1.336 BB 0.0371 4.51409 1.441 BB 0.0388 6.66951 4 5 0.0639 1773.01514 398.89908 0.64167 2.020 BB 6 2.76315e5 2.85981e5 Totals :

Instrument 1 7/6/2018 10:07:04 PM Zach Taylor

Instrument 1 7/6/2018 10:07:05 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\088F0103.D Sample Name: hydrocinnama Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 27-May-18, 16:04:19 Inj: 3 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\Z1.M Acq. Method : 5/26/2018 9:31:03 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-27 15-55-06\088F0103.D) Norm 674 250000 200000 150000 100000 50000 2.014 440 331 0 2.5 mir 0.5 1.5 Area Percent Report Signal Sorted By : 1.0000 Multiplier : 1.0000 Dilution . Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area [pA] 몽 [min] [pA*s] # [min] 1 0.674 BV S 0.0155 2.61040e5 2.31698e5 95.69035 2 1.082 BV T 0.0135 7.54095 9.25784 0.00276 1.122 VB S 0.0174 1.05300e4 9775.53418 3.86001 3 2.00801 0.00163 2.29125 0.00257
 1.331
 BB
 0.0362
 4.44401

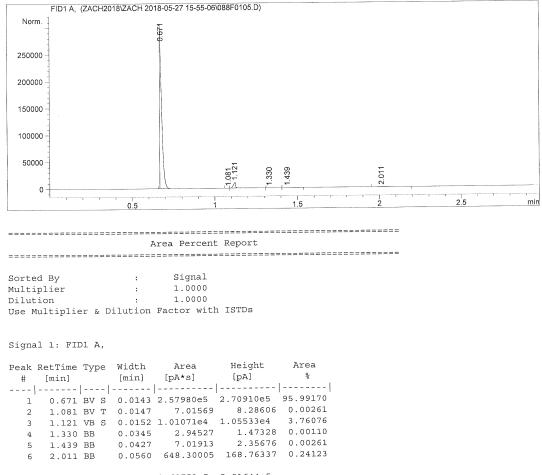
 1.440
 BB
 0.0437
 7.02100
 4 1.440 BB 0.0437 5 2.014 BB 0.0639 1207.60278 271.60892 0.44267 6 2.72797e5 2.41758e5 Totals : Page 1 of 1

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\088F0104.D Sample Name: hydrocinnama Seq. Line : 1 Acq. Operator : Zach Taylor Acq. Instrument : Instrument 1 Location : Vial 88 Injection Date : 27-May-18, 16:08:19 Inj: 4 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\Z1.M Acq. Method : 5/26/2018 9:31:03 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-27 15-55-06\088F0104.D) Norm. 0.672 250000 200000 150000 100000 50000 0 0.5 2.5 min Area Percent Report Sorted By : Signal 1.0000 Multiplier : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Peak RetTime Type Width Area Area [pA] 8 [min] [pA*s] # [min] 1 0.672 BV S 0.0143 2.65456e5 2.77881e5 95.91655 1.082 BV T 0.0140 7.39281 8.65102 0.00267 2 1.121 VB S 0.0156 1.04527e4 1.05475e4 3.77685 3 1.70855 0.00147 2.33423 0.00266 1.331 BB 0.0389 4.06336 4 0.0432 7.36119 1.440 BB 5 0.0558 829.72516 217.21327 0.29980 2.014 BB 6 2.76758e5 2.88659e5 Totals :

Instrument 1 7/6/2018 10:07:07 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\088F0105.D Sample Name: hydrocinnama

	= =			======	= == ;	=====	===
Acq. Operator	:	Zach Taylor	Seq.	Line	:	1	
Acq. Instrument	:	Instrument 1	Loc	ation	:	Vial	88
Injection Date	:	27-May-18, 16:12:20		Inj	:	5	
		-		olume			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018	-05-2	7	15-55-	06\Z1.M
Last changed	:	5/26/2018 9:31:03 PM b	y Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M				
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor				
		(modified after loadin	g)				
Method Info	:	Alditol lab.					

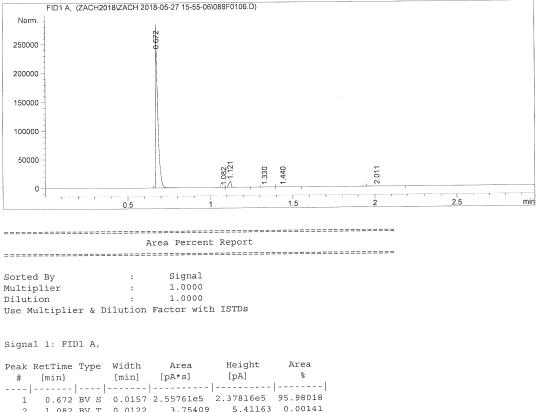


Totals : 2.68753e5 2.81644e5

Instrument 1 7/6/2018 10:07:10 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\088F0106.D Sample Name: hydrocinnama

	= = :		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	27-May-18, 16:16:19	Inj: 6
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-27 15-55-06\Z1.M
Last changed	:	5/26/2018 9:31:03 PM b	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	1.M
Last changed	:	7/6/2018 9:23:05 PM by	/ Zach Taylor
		(modified after loading	ng)
Method Info	:	Alditol lab.	

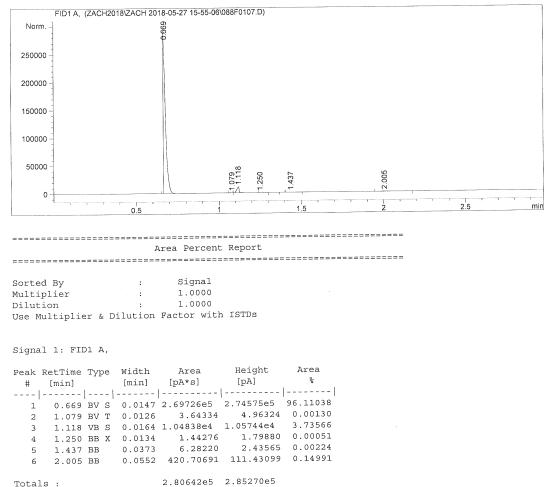


Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.672	BV S	0.0157	2.55761e5	2.37816e5	95.98018
2	1.082	ву т	0.0122	3.75409	5.41163	0.00141
3	1.121	VB S	0.0163	1.01782e4	1.03262e4	3.81962
4	1.330	BB	0.0345	3.81009	1.49784	0.00143
5	1.440	BB	0.0428	7.34513	2.40649	0.00276
6	2.011	BB	0.0566	518.58289	138.24364	0.19461
Totals	:			2.66473e5	2.48290e5	

Instrument 1 7/6/2018 10:07:12 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\088F0107.D Sample Name: hydrocinnama

Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 27-May-18, 16:20:21 Inj : 7 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\Z1.M Acq. Method : 5/26/2018 9:31:03 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.

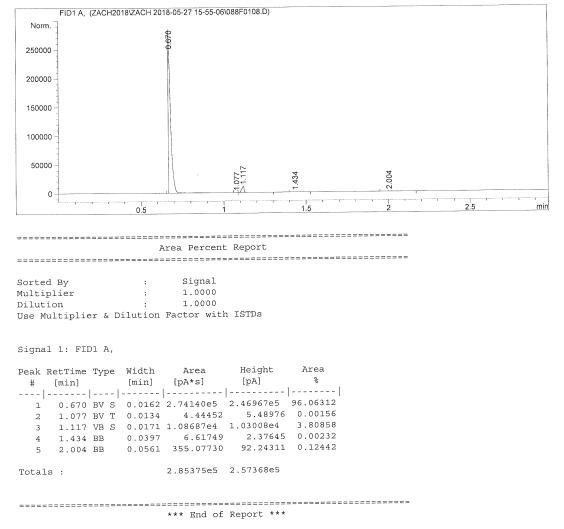


Totals :

Instrument 1 7/6/2018 10:07:14 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\088F0108.D Sample Name: hydrocinnama Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Injection Date : 27-May-18, 16:24:21 Inj : 8 Inj Volume : 1 µl Acq. Volume : 1 µl

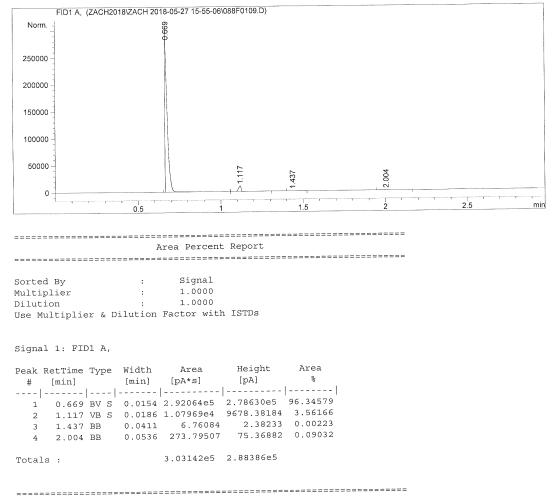
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\Z1.
Last changed	:	5/26/2018 9:31:03 PM by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor
		(modified after loading)
Method Info	:	Alditol lab.



Instrument 1 7/6/2018 10:07:17 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\088F0109.D Sample Name: hydrocinnama

Acq. Operator	:	Zach Taylor	Seq. Line : 1						
Acq. Instrument	:	Instrument 1	Location : Vial 88						
Injection Date	:	27-May-18, 16:28:24	Inj : 9						
5		-	Inj Volume : 1 µl						
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-27 15-55-06\Z1.M						
Last changed	:	5/26/2018 9:31:03 PM	/26/2018 9:31:03 PM by Zach Taylor						
Analysis Method	:	C:\CHEM32\1\METHODS\Z	C:\CHEM32\1\METHODS\Z4.M						
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor						
		(modified after loadi							
Method Info	:	Alditol lab.							

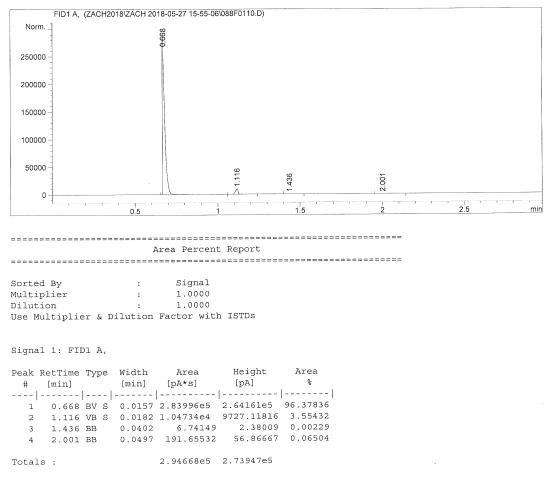


*** End of Report ***

Instrument 1 7/6/2018 10:07:19 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\088F0110.D Sample Name: hydrocinnama

	===			= = =		
Acq. Operator	:	Zach Taylor	Seq. Line	:	1	
Acq. Instrument	:	Instrument 1	Location	:	Vial 88	
Injection Date	:	27-May-18, 16:32:25	Inj	:	10	
			Inj Volume			
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-27	7 3	15-55-06\Z1.M	
Last changed	:	5/26/2018 9:31:03 PM by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M			
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor			
		(modified after loadi	ng)			
Method Info	:	Alditol lab.				

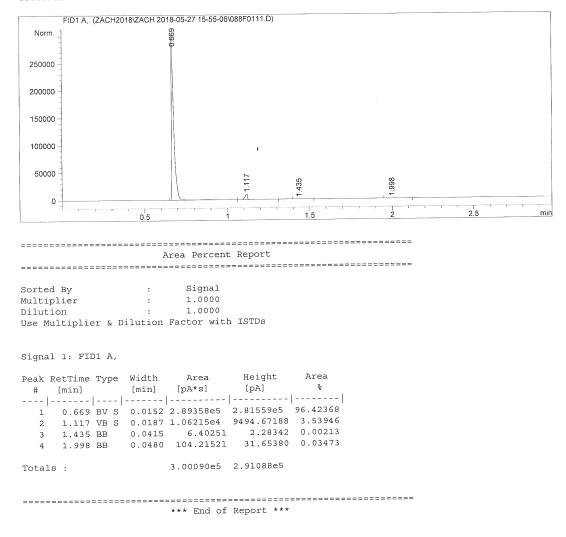


*** End of Report ***

Instrument 1 7/6/2018 10:07:21 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 15-55-06\088F0111.D Sample Name: hydrocinnama

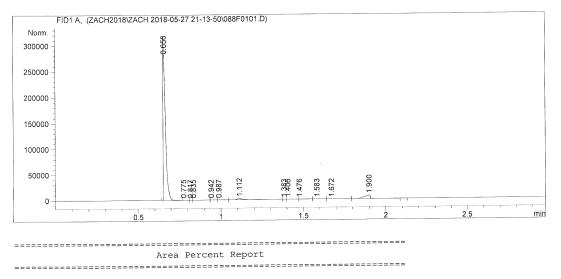
Acq. Operator	:	Zach Taylor	Seq. Line : 1					
Acq. Instrument	:	Instrument 1	Location : Vial 88					
		27-May-18, 16:36:27	Inj : 11					
5			Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-27 15-55-06\Z1.M					
Last changed	:	5/26/2018 9:31:03 PM k	/26/2018 9:31:03 PM by Zach Taylor					
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	C:\CHEM32\1\METHODS\Z4.M					
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor					
		(modified after loadir	ng)					
Method Info	:	Alditol lab.						



Instrument 1 7/6/2018 10:07:22 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0101.D Sample Name: 2-thio

Acq. Operator	: Zach Taylor	Seq. Line : 1				
Acq. Instrument	: Instrument 1	Location : Vial 88				
Injection Date	: 27-May-18, 21:15:45	Inj : 1				
		Inj Volume : 1 µl				
Acq. Method	: C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-27 21-13-50\Z1.M				
Last changed	: 5/27/2018 9:13:48 PM by	5/27/2018 9:13:48 PM by Zach Taylor				
Analysis Method	: C:\CHEM32\1\METHODS\Z4	. M				
Last changed	: 7/6/2018 9:23:05 PM by	Zach Taylor				
-	(modified after loading	1)				
Method Info	: Alditol lab.					



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak RetTime Type Width Area Height Area [pA*s] [pA] Ŷ [min] # [min] -----___ | _____ | ____ | ____ | _____ | _____ | _____ | 0.656 BB S 0.0169 3.08561e5 2.79393e5 93.37499 1 25.45866 0.00725 0.775 BV X 0.0157 23.95789 2 10.18111 0.00147 0.817 VV X 7.94e-3 4.85287 3 0.00247 0.835 VV X 0.0126 8.16082 10.80689 4 3.15164 3.59123 0.00095 0.942 VV X 0.0146 5 2.20332 0.00109 3.60226 0.987 VV X 0.0272 6 1.112 VV X 0.0344 5871.59619 2377.26147 1.77683 7 17.87978 15.19742 0.00541 1.383 VV X 0.0196 8 0.01138 1.406 VV X 0.0496 37.60131 12.64606 9 0.00803 1.476 VV X 0.0589 26.53295 7.50364 10 1.583 VV X 0.0297 24.28363 11.37354 0.00735 11

Instrument 1 7/6/2018 10:14:48 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0101.D Sample Name: 2-thio

Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 27-May-18, 21:15:45 Inj: 1 Inj Volume : 1 µl

 Acq. Method
 : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\Z1.M

 Last changed
 : 5/27/2018 9:13:48 PM by Zach Taylor

 Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab.

 Peak RetTime Type Width
 Area
 Height
 Area

 # [min]
 [min]
 [pA*s]
 [pA]
 %

 ----|-----|

 ------|

 12
 1.672
 VV X
 0.0267
 83.12631
 47.83618
 0.02516

 13
 1.900
 VB T
 0.0329
 1.57878e4
 6548.25049
 4.77763

 3.30454e5 2.88466e5 Totals :

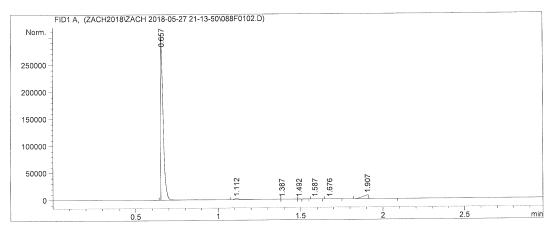
*** End of Report ***

Instrument 1 7/6/2018 10:14:48 PM Zach Taylor

Page 2 of 2

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0102.D Sample Name: 2-thio

ipie Name: 2-chito							
Acq. Operator	:	Zach Taylor	Seq.	Line	:	1	
Acq. Instrument	:	Instrument 1	Loca	ation	:	Vial	88
Injection Date	:	27-May-18, 21:19:44		Inj	;	2	
2			Inj V				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZAC	CH 2018	-05-27	7	21-13-	50\Z1.M
Last changed	:	5/27/2018 9:13:48 PM by Zach Taylor					
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M					
Last changed	:	7/6/2018 9:23:05 PM by Zach T	Taylor				
		(modified after loading)					
Method Info	:	Alditol lab.					



Area Percent Report

Sorted By	:	Signal
Multiplier	:	1.0000
Dilution	:	1.0000
Use Multiplier	& Dilution	Factor with ISTDs

Signal 1: FID1 A,

Peak Re #	etTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.657	BB	s	0.0171	3.13154e5	2.78740e5	93.53929
2	1.112	ΒV	Х	0.0350	4771.18750	1946.87866	1.42516
3	1.387	vv	Х	0.0514	22.24678	7.21971	0.00665
4	1.492	VB	Х	0.0121	1.29392	1.78122	0.00039
5	1.587	BB		0.0237	12.82387	8.25344	0.00383
6	1.676	BB		0.0271	77.36341	45.44598	0.02311
7	1.907	BB		0.0312	1.67444e4	6973.89404	5.00158
Totals	:				3.34783e5	2.87723e5	

Instrument 1 7/6/2018 10:14:51 PM Zach Taylor

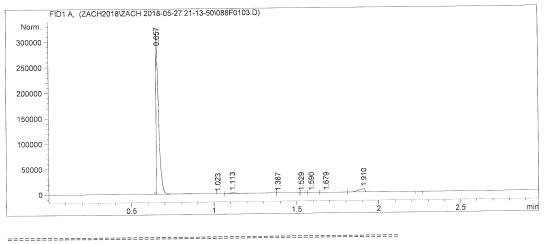
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0102.D Sample Name: 2-thio

Instrument 1 7/6/2018 10:14:51 PM Zach Taylor

Page 2 of 2

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0103.D Sample Name: 2-thio

ipie Name: 2-thio							
Acq. Operator	: Zach Taylor	Seq. Line : 1					
Acq. Instrument	: Instrument 1	Location : Vial 88					
Injection Date	: 27-May-18, 21:23:45	Inj : 3					
2		Inj Volume : 1 µl					
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZA	ACH 2018-05-27 21-13-50\Z1.M					
Last changed	: 5/27/2018 9:13:48 PM by Zach	n Taylor					
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M						
Last changed	: 7/6/2018 9:23:05 PM by Zach	Taylor					
-	(modified after loading)						
Method Info	: Alditol lab.						



Area Percent Report

-

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak RetT: # [min		pe	Width [min]	Area [pA*s]	Height [pA]	Area %
1 0.4	557 BB	s	0.0175	3.33160e5	2.87703e5	94.18890
2 1.	023 BV	Х	0.0142	3.48458	4.09524	0.00099
3 1.	113 VV	х	0.0332	4009.39624	1646.22571	1.13351
4 1.	387 VV	х	0.0484	19.37513	6.67841	0.00548
	529 VV		0.0228	1.80016	1.31583	0.00051
•	590 VV		0.0274	12.38701	7,76667	0.00350
•	679 VV		0.0265	78.22131	47.23868	0.02211
, _,	910 VB		0.0339	1.64301e4	6762.44873	4.64501

Totals :

3.53715e5 2.96179e5

Instrument 1 7/6/2018 10:14:53 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0103.D Sample Name: 2-thio

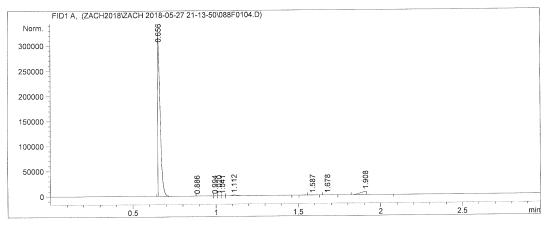
ample Name: 2-thio		
Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument	: Instrument 1	Location : Vial 88
Injection Date	: 27-May-18, 21:23:45	Inj: 3
Ū.		Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\Z	ACH 2018-05-27 21-13-50\Z1.M
Last changed	: 5/27/2018 9:13:48 PM by Zac	h Taylor
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	
Last changed	: 7/6/2018 9:23:05 PM by Zach	Taylor
_	(modified after loading)	
Method Info	: Alditol lab.	
=======================================		
	*** End of Report *	**

Instrument 1 7/6/2018 10:14:53 PM Zach Taylor

Page 2 of 2

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0104.D Sample Name: 2-thio

	= ==							
Acq. Operator	:	Zach Taylor	Seq. Line : 1					
Acq. Instrument	:	Instrument 1	Location : Vial 88					
Injection Date	:	27-May-18, 21:27:45	Inj: 4					
2		-	Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-27 21-13-50\	Zl.M				
Last changed	:	5/27/2018 9:13:48 PM	5/27/2018 9:13:48 PM by Zach Taylor					
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M					
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor					
		(modified after loadi	ng)					
Method Info	:	Alditol lab.						



Area Percent Report

Sorted By : Signal Multiplier : 1.0000

Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	TYF	be	Width [min]	Area [pA*s]	Height [pA]	Area %
	~ ~ ~ ~ ~						
1	0.656	BB	S	0.0156	3.10065e5	3.11434e5	93.96436
2	0.886	вv	Х	0.0407	8.49154	3.47624	0.00257
3	0.994	vv	Х	0.0100	2.64810	4.40429	0.00080
4	1.020	vv	Х	0.0177	2.32392	2,18652	0.00070
5	1.041	vv	Х	9.42e-3	1.77537	3.14140	0.00054
6	1,112	VB	Х	0.0346	3667.97485	1477.40479	1.11157
7	1.587	BB		0.0219	12.48086	8.49923	0.00378
. 8	1.678	BB		0.0253	76.17230	47.10828	0.02308
9	1.908	BB		0.0323	1.61446e4	6655.03418	4.89259

Totals : 3.29982e5 3.19636e5

Instrument 1 7/6/2018 10:14:55 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0104.D Sample Name: 2-thio Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Injection Date : 27-May-18, 21:27:45 Inj : 4 Inj Volume : 1 µl Acq. Method : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\Z1.M Last changed : 5/27/2018 9:13:48 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab.

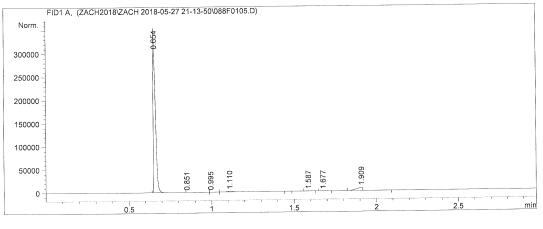
*** End of Report ***

Instrument 1 7/6/2018 10:14:55 PM Zach Taylor

Page 2 of 2

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0105.D Sample Name: 2-thio

```
Acq. Operator : Zach Taylor
                                                    1
                                        Seq. Line :
                                         Location : Vial 88
Acq. Instrument : Instrument 1
                                              Inj: 5
Injection Date : 27-May-18, 21:31:46
                                        Inj Volume : 1 µl
             : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\Z1.M
Acq. Method
             : 5/27/2018 9:13:48 PM by Zach Taylor
Last changed
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
            : 7/6/2018 9:23:05 PM by Zach Taylor
Last changed
               (modified after loading)
Method Info
             : Alditol lab.
```



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak Re	tTime [min]	Тур	be	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.654	BB	s	0.0161	3.15749e5	3.05265e5	93.98808
2	0.851	вV	х	0.0668	15.69845	3.91535	0.00467
3	0.995	vv	х	0.0113	2.35711	3.48388	0.00070
4	1.110	VB	т	0.0316	3413.13452	1484.83716	1.01598
5	1.587	BB		0.0224	11.64378	8.50204	0.00347
6	1.677	BB		0.0230	77.60952	51.89759	0.02310
7	1.909	BB		0.0331	1.66763e4	7072.66650	4.96400
Totals	:				3.35945e5	3.13890e5	

Instrument 1 7/6/2018 10:14:57 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0105.D Sample Name: 2-thio

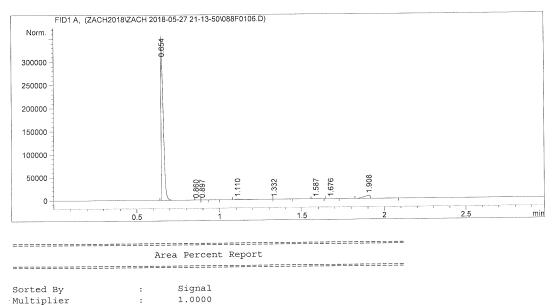
ample Name: 2-thio						
Acq. Operator	: Zach Taylor	Seq. Line : 1				
Acq. Instrument	: Instrument 1	Location : Vial 88				
Injection Date	: 27-May-18, 21:31:46	Inj: 5				
		Inj Volume : 1 µl				
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZAC	CH 2018-05-27 21-13-50\Z1.M				
Last changed	: 5/27/2018 9:13:48 PM by Zach					
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M					
Last changed	: 7/6/2018 9:23:05 PM by Zach 7	Taylor				
5	(modified after loading)					
Method Info	: Alditol lab.					
	*** End of Report ***	*				
	-					

Instrument 1 7/6/2018 10:14:57 PM Zach Taylor

Page 2 of 2

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0106.D Sample Name: 2-thio

Acq. Operator	:	Zach Taylor	Seq. Line : 1		
Acq. Instrument	:	Instrument 1	Location : Vial 88		
Injection Date	:	27-May-18, 21:35:44	Inj: 6		
			Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018	8\ZACH 2018-05-27 21-13-50\Z1.M		
Last changed	:	5/27/2018 9:13:48 PM by 2	Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M			
Last changed	:	7/6/2018 9:23:05 PM by Za	ach Taylor		
		(modified after loading)			
Method Info	:	Alditol lab.			



Signal 1: FID1 A,

Dilution

Peak Re	tTime	Түр	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.654	BB	s	0.0162	3.18865e5	3.06033e5	94.21966
2	0.860	вv	х	0.0152	3.22664	3.52897	0.00095
3	0.897	VB	х	0.0151	3.34678	3.68483	0.00099
4	1.110	вv		0.0317	3055.51953	1324.88965	0.90286
5	1.332	VB		0.0313	19.87535	8.01942	0.00587
6	1.587	BB		0.0212	11.78379	8.40337	0.00348
7	1.676	BB		0.0229	75.39151	50.97127	0.02228
8	1.908	BB		0.0324	1.63931e4	6726.94824	4.84391
Totals	:				3.38428e5	3.14159e5	

1.0000

: Use Multiplier & Dilution Factor with ISTDs

Instrument 1 7/6/2018 10:14:59 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0106.D Sample Name: 2-thio

ample Name: 2-thio					
Acq. Operator	: Zach Taylor	Seq. Line : 1			
Acq. Instrument	: Instrument 1	Location : Vial 88			
Injection Date	: 27-May-18, 21:35:44	Inj: 6			
		Inj Volume : 1 µl			
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\3	ZACH 2018-05-27 21-13-50\Z1.M			
	: 5/27/2018 9:13:48 PM by Zac				
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M				
Last changed	: 7/6/2018 9:23:05 PM by Zacl	h Taylor			
	(modified after loading)				
Method Info	: Alditol lab.				

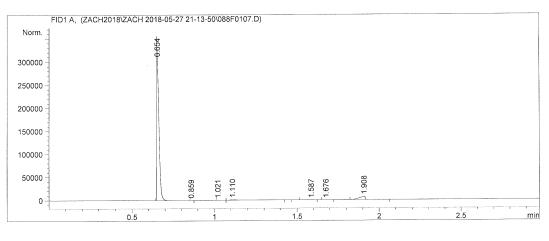
*** End of Report ***

Instrument 1 7/6/2018 10:14:59 PM Zach Taylor

Page 2 of 2

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0107.D Sample Name: 2-thio

	= :			
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	27-May-18, 21:39:45	Inj : 7	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-27 21-13-50\Z1.M	
Last changed	:	5/27/2018 9:13:48 PM k	y Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	4.M	
Last changed	:	7/6/2018 9:23:05 PM by	/ Zach Taylor	
		(modified after loading	ng)	
Method Info	:	Alditol lab.		



Area Percent Report

Sorted By		:	Sign	nal	
Multiplier		:	1.00	00	
Dilution		:	1.00	000	
Use Multiplier	&	Dilution	Factor	with	ISTDs

Signal 1: FID1 A,

Peak Re #	etTime (min)	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.654	BB S	0.0162	3.20240e5	3.06775e5	94.25195
2	0.859	вв х	9.59e-3	3.58326	6.22546	0.00105
3	1.021	BV X	0.0210	2.71981	2.15596	0.00080
4	1.110	VB X	0.0332	2861.74487	1175.72705	0.84226
5	1.587	BB	0.0213	11.95433	8.43043	0.00352
6	1.676	BB	0.0229	77.01523	51.96950	0.02267
7	1.908	BB	0.0359	1.65731e4	6739.01611	4.87775
Totals	:			3.39770e5	3.14758e5	

Instrument 1 7/6/2018 10:15:01 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0107.D Sample Name: 2-thio

Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Injection Date : 27-May-18, 21:39:45 Inj : 7 Acq. Method : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\Z1.M Last changed : 5/27/2018 9:13:48 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab.

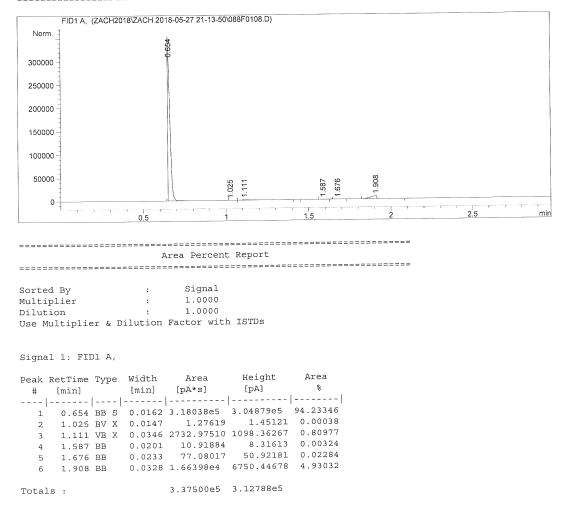
*** End of Report ***

Instrument 1 7/6/2018 10:15:01 PM Zach Taylor

Page 2 of 2

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0108.D Sample Name: 2-thio

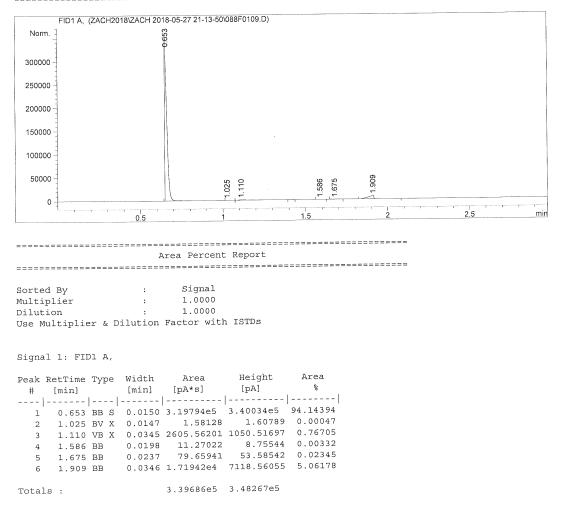
	= == :		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	27-May-18, 21:43:44	Inj : 8
5			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-27 21-13-50\Z1.M
Last changed	:	5/27/2018 9:13:48 PM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor
-		(modified after loadi	ng)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:15:03 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0109.D Sample Name: 2-thio

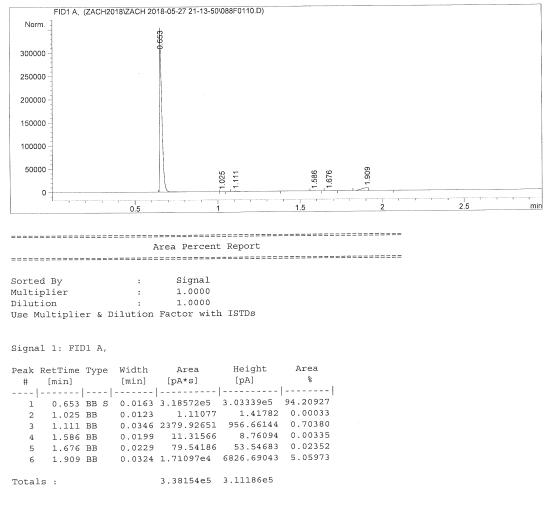
	= = :			= =	
Acq. Operator	:	Zach Taylor	Seq. Line	:	1
Acq. Instrument	:	Instrument 1	Location	:	Vial 88
Injection Date	:	27-May-18, 21:47:45	Inj	:	9
5		-	Inj Volume		
Acq. Method	:	C:\Chem32\1\DATA\ZACH	H2018\ZACH 2018-05-27	1	21-13-50\Z1.M
Last changed	:	5/27/2018 9:13:48 PM	by Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\2	24.M		
Last changed	:	7/6/2018 9:23:05 PM }	oy Zach Taylor		
5		(modified after load:	ing)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 10:15:05 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0110.D Sample Name: 2-thio

	=		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	27-May-18, 21:51:45	Inj : 10
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	H2018\ZACH 2018-05-27 21-13-50\Z1.M
Last changed	:	5/27/2018 9:13:48 PM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\2	Z4.M
Last changed	:	7/6/2018 9:23:05 PM b	by Zach Taylor
		(modified after load:	ing)
Method Info	:	Alditol lab.	



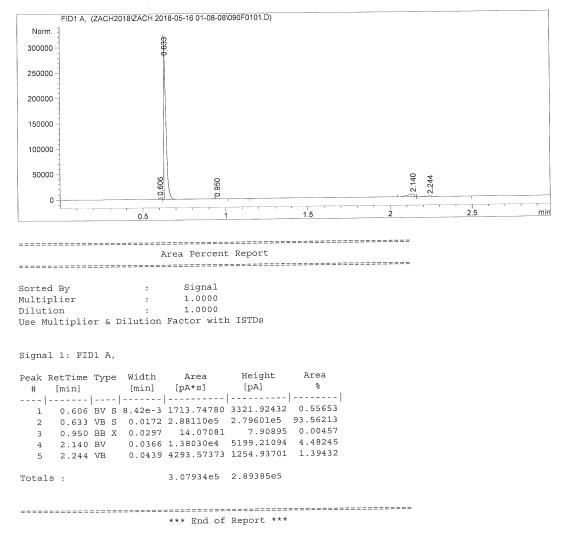
Instrument 1 7/6/2018 10:15:06 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\088F0111.D Sample Name: 2-thio Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 27-May-18, 21:55:45 Inj : 11 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 21-13-50\Z1.M Acq. Method : 5/27/2018 9:13:48 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-27 21-13-50\088F0111.D) Norm. 0:653 300000 250000 200000 150000 100000 50000 907 1.110 .586 .675 0 2.5 min 0.5 5 Area Percent Report Signal Sorted By : 1.0000 Multiplier : Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area 8 [pA*s] [pA] # [min] [min] 0.653 BB S 0.0149 3.15465e5 3.36451e5 94.49656 1 1.110 BB 0.0351 2069.91479 819.23126 0.62004 2 8.12404 0.00319 0.0209 10.64335 3 1.586 BB
 1.675
 BB
 0.0239
 74.98531
 49.93809
 0.02246

 1.907
 BB
 0.0327
 1.62170e4
 6597.41895
 4.85775
 4 5 3.33837e5 3.43925e5 Totals : *** End of Report *** Page 1 of 1 Instrument 1 7/6/2018 10:15:08 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 01-08-08\090F0101.D Sample Name: 2-thiophene #2

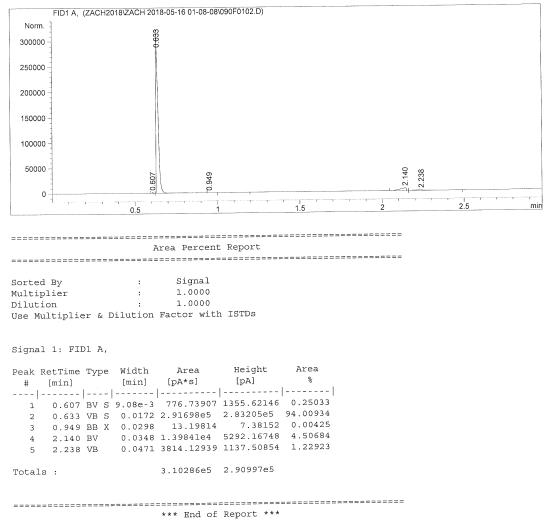
	= =				
Acq. Operator	:	Zach Taylor	Seq. Line	:	1
Acq. Instrument	:	Instrument 1	Location		
Injection Date	:	16-May-18, 01:09:10	Inj	:	1
-			Inj Volume		
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-1	6	01-08-08\Z1.M
Last changed	;	5/16/2018 12:20:10 AM	by Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M		
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor		
		(modified after loadi	ng)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 10:16:42 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 01-08-08\090F0102.D Sample Name: 2-thiophene #2

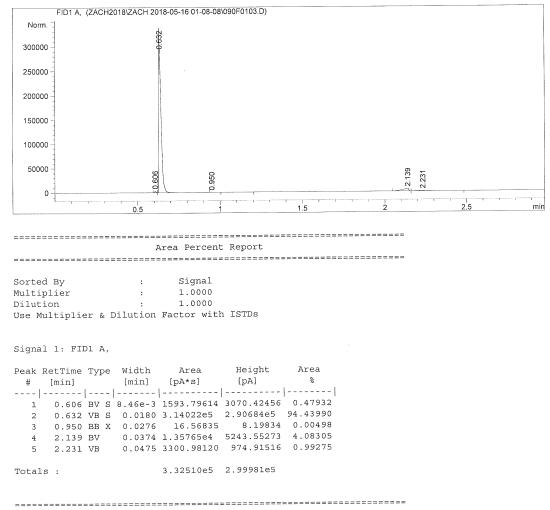
	= ==			
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 90	
Injection Date	:	16-May-18, 01:13:16	Inj : 2	
5		-	Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-16 01-08-08\Z1.	M
Last changed	:	5/16/2018 12:20:10 AM	by Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M	
Last changed	:	7/6/2018 9:23:05 PM by	/ Zach Taylor	
-		(modified after loadir	ng)	
Method Info	:	Alditol lab.		



Instrument 1 7/6/2018 10:16:44 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 01-08-08\090F0103.D Sample Name: 2-thiophene #2

1 Acq. Operator : Zach Taylor Seq. Line : Location : Vial 90 Acq. Instrument : Instrument 1 Injection Date : 16-May-18, 01:17:18 Inj: 3 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-16 01-08-08\Z1.M Acq. Method : 5/16/2018 12:20:10 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab.

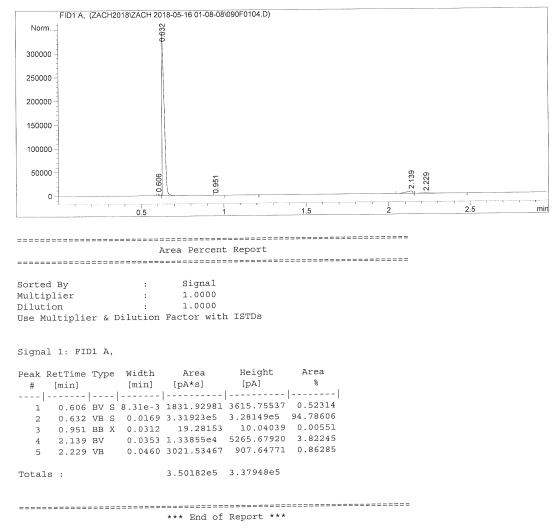


*** End of Report ***

Instrument 1 7/6/2018 10:16:45 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 01-08-08\090F0104.D Sample Name: 2-thiophene #2

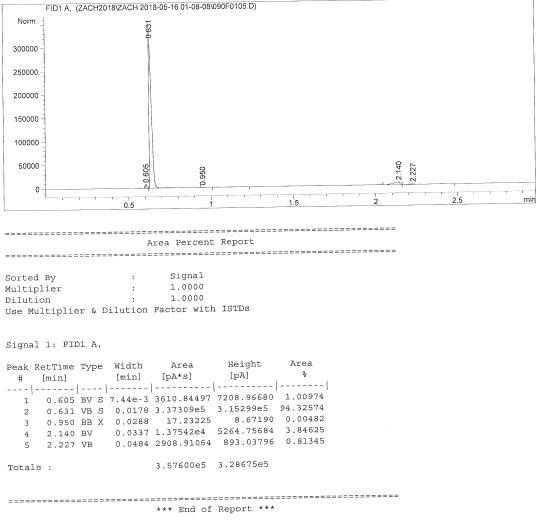
Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument	: Instrument 1	Location : Vial 90
Injection Date	: 16-May-18, 01:21:21	Inj: 4
5		Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-16 01-08-08\Z1.M
Last changed	: 5/16/2018 12:20:10 AM b	y Zach Taylor
Analysis Method	: C:\CHEM32\1\METHODS\Z4.	М
Last changed	: 7/6/2018 9:23:05 PM by	Zach Taylor
-	(modified after loading)
Method Info	: Alditol lab.	



Instrument 1 7/6/2018 10:16:47 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 01-08-08\090F0105.D Sample Name: 2-thiophene #2

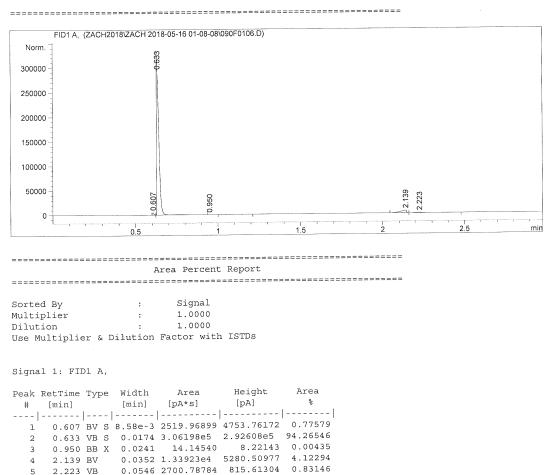
	: == :		
Acq. Operator	:	Zach Taylor Seq. Line : 1	
Acq. Instrument			
		16-May-18, 01:25:23 Inj : 5	
		Inj Volume : 1 µl	
Acg. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-16 01-08-08\Z1.M	I
Last changed	:	5/16/2018 12:20:10 AM by Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor	
5		(modified after loading)	
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:16:49 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 01-08-08\090F0106.D Sample Name: 2-thiophene #2

Acq. Operator	: Zach Taylor	Seq. Line : 1
Acq. Instrument	: Instrument 1	Location : Vial 90
Injection Date	: 16-May-18, 01:29:27	Inj: 6
2	-	Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-16 01-08-08\Z1.M
	: 5/16/2018 12:20:10 AM b	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.	M
	: 7/6/2018 9:23:05 PM by	
	(modified after loading	•)
Method Info	: Alditol lab.	



Totals :

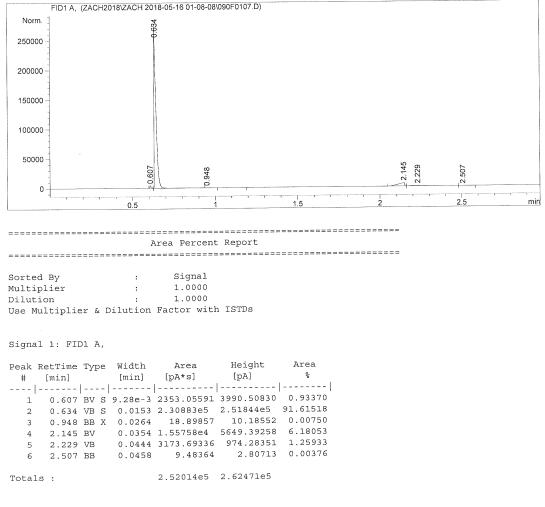
3.24825e5 3.03466e5

*** End of Report ***

Instrument 1 7/6/2018 10:16:51 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 01-08-08\090F0107.D Sample Name: 2-thiophene #2

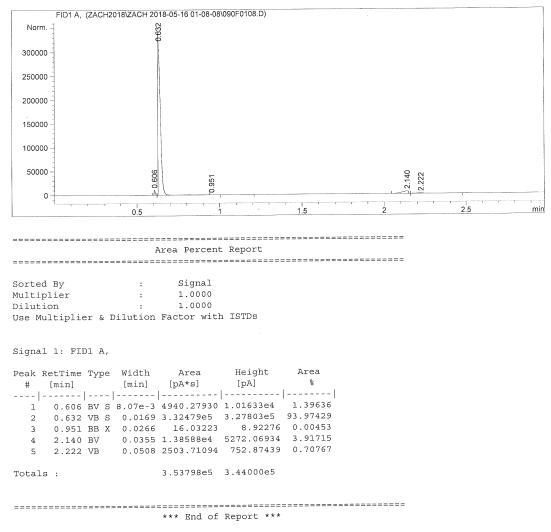
pre name, z entophene «z					
	= = :				
Acq. Operator	:	Zach Taylor	Seq. Line : 1		
Acq. Instrument	:	Instrument 1	Location : Vial 90		
Injection Date	:	16-May-18, 01:33:28	Inj: 7		
5		-	Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	018\ZACH 2018-05-16 01-08-08\Z1.M		
Last changed	:	5/16/2018 12:20:10 AM b	by Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M		
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor		
		(modified after loading	a)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 10:16:52 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 01-08-08\090F0108.D Sample Name: 2-thiophene #2

	= = :		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 90
Injection Date	:	16-May-18, 01:37:31	Inj: 8
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-16 01-08-08\Z1.M
Last changed	:	5/16/2018 12:20:10 AM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	1.M
Last changed	:	7/6/2018 9:23:05 PM by	y Zach Taylor
		(modified after loading	ng)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:16:54 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 01-08-08\090F0109.D Sample Name: 2-thiophene #2

Acq. Operator	Lacin raginal	g. Line : l
Acq. Instrument	Instrument 1 Lo	ocation : Vial 90
Injection Date	16-May-18, 01:41:33	Inj: 9
2		Volume : 1 µl
Acq. Method	C:\Chem32\1\DATA\ZACH2018\ZACH 201	L8-05-16 01-08-08\Z1.M
Last changed	5/16/2018 12:20:10 AM by Zach Tay	lor
Analysis Method	C:\CHEM32\1\METHODS\Z4.M	
Last changed	7/6/2018 9:23:05 PM by Zach Taylor	c
5	(modified after loading)	
Method Info	Alditol lab.	

FID1 A, (ZACH2018\ZACH 2018-05-16 01-08-08\090F0109.D) Norm. 0.632 300000 250000 200000 150000 100000 50000 2.139 306 0.949 0 2.5 min 0.5 15 Area Percent Report Sorted By Signal • 1.0000 Multiplier : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Area Height Peak RetTime Type Width Area [min] [pA*s] [pA] 응 # [min] _ _ _ _ _ _ _ _ _ 1 0.606 BV S 8.27e-3 4444.90967 8839.26465 1.38595 0.632 VB S 0.0172 3.00607e5 2.91032e5 93.73144 2 9.18284 0.00522 0.949 BB X 0.0269 16.73009 3 2.139 BV 0.0335 1.33321e4 5276.47119 4.15704 4 0.0478 2310.24927 691.24426 0.72035 2.217 VB 5 3.20711e5 3.05848e5 Totals : -----*** End of Report ***

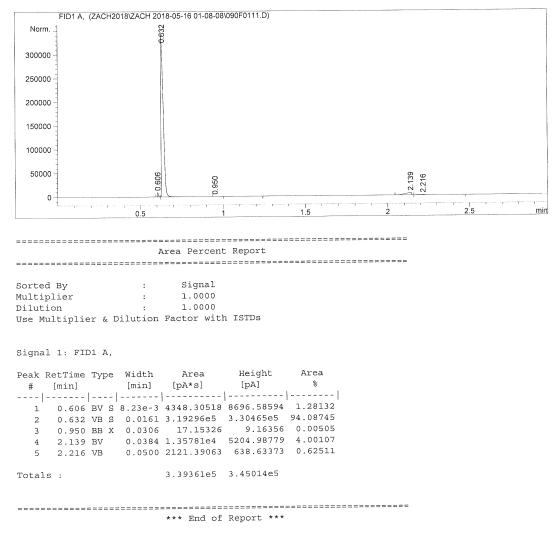
Instrument 1 7/6/2018 10:16:56 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 01-08-08\090F0110.D Sample Name: 2-thiophene #2 Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Injection Date : 16-May-18, 01:45:37 Inj : 10 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-16 01-08-08\Z1.M Acq. Method : 5/16/2018 12:20:10 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-16 01-08-08\090F0110.D) Norm. 0.632 300000 250000 200000 150000 100000 50000 139 2.218 0.951 Ċ. 0 2.5 1.5 0.5 Area Percent Report Signal Sorted By : 1.0000 Multiplier : Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area [pA*s] [pA] 8 # [min] [min] 0.606 BV S 8.26e-3 4402.12207 8758.28711 1.29933 1 0.632 VB S 0.0160 3.18600e5 3.30862e5 94.03784 2 0.951 BB X 0.0257 15.43427 8.63466 0.00456 3
 2.139
 BV
 0.0344
 1.35429e4
 5204.33740
 3.99731

 2.218
 VB
 0.0496
 2239.33325
 679.48114
 0.66096
 4 2.218 VB 5 3.38800e5 3.45512e5 Totals : *** End of Report *** Instrument 1 7/6/2018 10:16:57 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-16 01-08-08\090F0111.D Sample Name: 2-thiophene #2

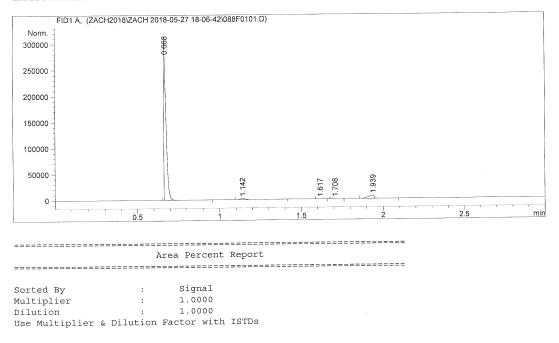
Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 90			
Injection Date	:	16-May-18, 01:49:39	Inj : 11			
			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZAC	H2018\ZACH 2018-05-16 01-08-08\Z1.M			
Last changed	:	5/16/2018 12:20:10 A	M by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\	Z4.M			
Last changed	:	7/6/2018 9:23:05 PM	by Zach Taylor			
		(modified after load	ing)			
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 10:16:59 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\088F0101.D Sample Name: 2-thiophene

pie Maile. 2 eniophene					
Acq. Operator					
Acq. Instrument	Instrument 1 Location : Vial 88				
Injection Date	27-May-18, 18:07:41 Inj : 1				
5	Inj Volume : 1 µl				
Acq. Method	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\	Z1.M			
Last changed	5/27/2018 5:15:20 PM by Zach Taylor				
Analysis Method	C:\CHEM32\1\METHODS\Z4.M				
Last changed	7/6/2018 9:23:05 PM by Zach Taylor				
	(modified after loading)				
Method Info	Alditol lab.				



Signal 1: FID1 A,

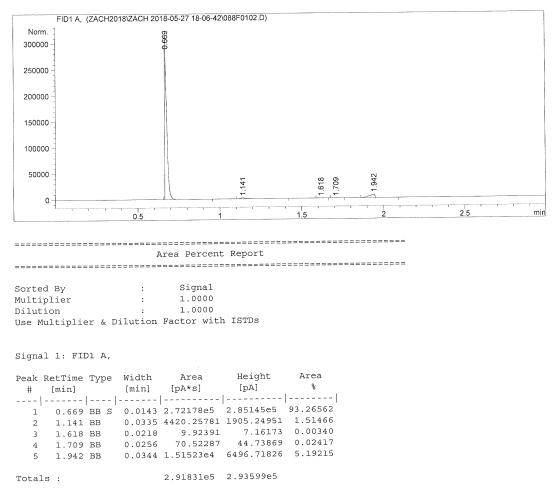
1 0.668 BB S 0.0151 2.80753e5 2.75982e5 93.57184 2 1.142 BB 0.0357 4925.51270 2074.67554 1.64162 3 1.617 BB 0.0221 9.55095 6.73360 0.00318 4 1.708 BB 0.0259 66.14202 41.29598 0.02204 5 1.939 BB 0.0309 1.42859e4 6190.32910 4.76132	Peak RetTime Type # [min]	Width [min]	Area [pA*s]	Height [pA]	Area %
5 1.939 BB 0.0309 1.42859e4 6190.32910 4.76132	2 1.142 BB 3 1.617 BB	0.0357	4925.51270 9.55095	2074.67554 6.73360	1.64162 0.00318
			1.42859e4	6190.32910	

*** End of Report ***

Instrument 1 7/6/2018 10:17:35 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\088F0102.D Sample Name: 2-thiophene

Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	27-May-18, 18:11:43	Inj: 2			
-			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-27 18-06-42\Z1.M			
Last changed	:	5/27/2018 5:15:20 PM k	y Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	.M			
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor			
-		(modified after loadir	lg)			
Method Info	:	Alditol lab.				

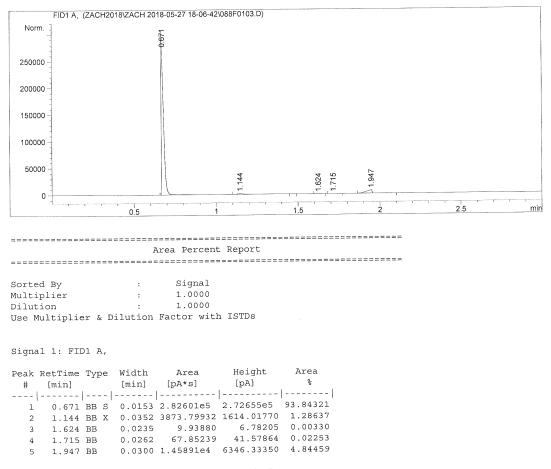


*** End of Report ***

Instrument 1 7/6/2018 10:17:37 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\088F0103.D Sample Name: 2-thiophene

apic Name. z enio							
Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument		-	Location : Vial 88				
Injection Date	:	27-May-18, 18:15:44	Inj: 3				
~			Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-27 18-06-42\Z1.M				
Last changed	:	5/27/2018 5:15:20 PM by 1	5/27/2018 5:15:20 PM by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	C:\CHEM32\1\METHODS\Z4.M				
Last changed			7/6/2018 9:23:05 PM by Zach Taylor				
5		(modified after loading)					
Method Info	:	Alditol lab.					



Totals :

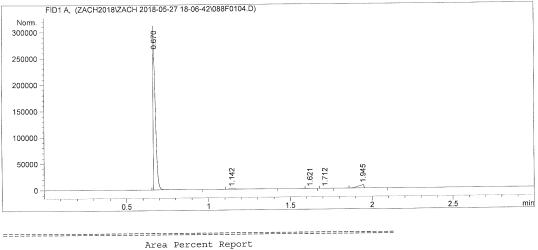
3.01142e5 2.80664e5

*** End of Report ***

Instrument 1 7/6/2018 10:17:39 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\088F0104.D Sample Name: 2-thiophene

		-
Acg. Operator	: Zach Taylor Seq. Line : 1	
Acq. Instrument	: Instrument 1 Location : Vial 88	
Injection Date	: 27-May-18, 18:19:46 Inj: 4	
5	Inj Volume : 1 µl	
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42	\Z1.M
Last changed	: 5/27/2018 5:15:20 PM by Zach Taylor	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	
Last changed	: 7/6/2018 9:23:05 PM by Zach Taylor	
-	(modified after loading)	
Method Info	: Alditol lab.	



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

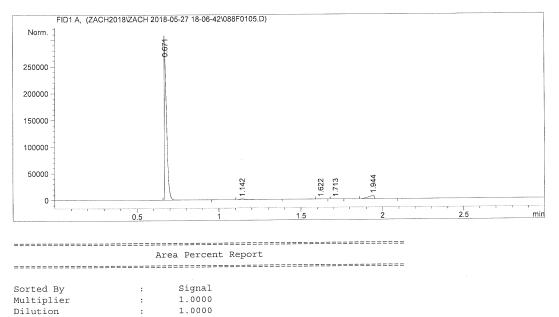
Peak F #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %	
1	0.670	BB S	0.0165	2.82532e5	2.63435e5	93.81868	
2	1.142	BB	0.0348	3667.66943	1547.71118	1.21790	
3	1.621	BB	0.0231	9.71215	6.77999	0.00323	
4	1.712	BB	0.0253	68.92242	42.52570	0.02289	
5	1.945	BB	0.0314	1.48685e4	6336.38525	4.93731	
Totals	3 :			3.01147e5	2.71368e5		

*** End of Report ***

Instrument 1 7/6/2018 10:17:41 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\088F0105.D Sample Name: 2-thiophene

pre name. 2 eniophene					
Acq. Operator	ich Taylor Seq. Line : 1				
Acq. Instrument	strument 1 Location : Vial	88			
Injection Date	'-May-18, 18:23:47 Inj: 5				
	Inj Volume : 1 µl				
Acq. Method	\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06	-42\Z1.M			
Last changed	27/2018 5:15:20 PM by Zach Taylor				
Analysis Method	C:\CHEM32\1\METHODS\Z4.M				
Last changed	6/2018 9:23:05 PM by Zach Taylor				
	odified after loading)				
Method Info	ditol lab.				



Signal 1: FID1 A,

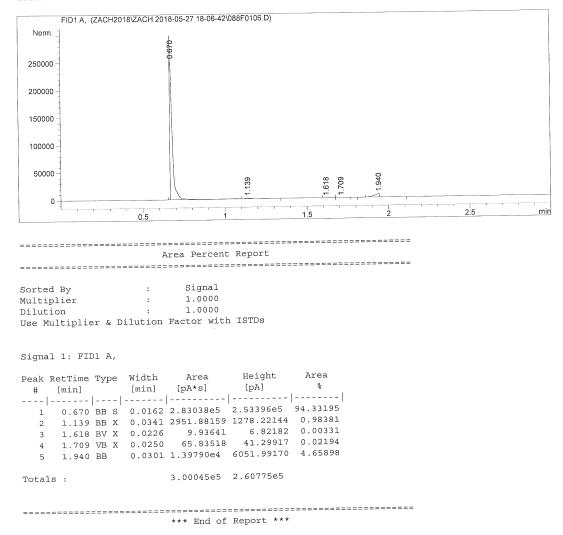
Peak R # - 1 2 3	etTime [min] 0.671 1.142 1.622	BB S BB	[min] 	Area [pA*s] 2.81135e5 3285.82593 9.47204	Height [pA] 2.64362e5 1399.68518 6.54790		
4 5	1.713			66.74464 1.43363e4	40.95613 6306.40186	0.02234 4.79743	
Totals			0.0010	2.98833e5			r
				*** End of	 Report ***	=======================================	

Instrument 1 7/6/2018 10:17:43 PM Zach Taylor

: Use Multiplier & Dilution Factor with ISTDs

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\088F0106.D Sample Name: 2-thiophene

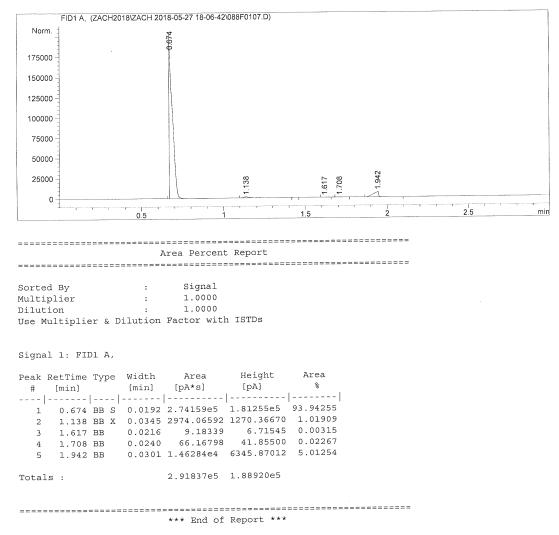
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Acq. Operator : Zach Taylor
                                        Seq. Line :
                                                   1
                                        Location : Vial 88
Acq. Instrument : Instrument 1
                                              Inj: 6
Injection Date : 27-May-18, 18:27:51
                                        Inj Volume : 1 µl
             : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\Z1.M
Acq. Method
             : 5/27/2018 5:15:20 PM by Zach Taylor
Last changed
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
            : 7/6/2018 9:23:05 PM by Zach Taylor
Last changed
               (modified after loading)
Method Info
             : Alditol lab.
```



Instrument 1 7/6/2018 10:17:44 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\088F0107.D Sample Name: 2-thiophene

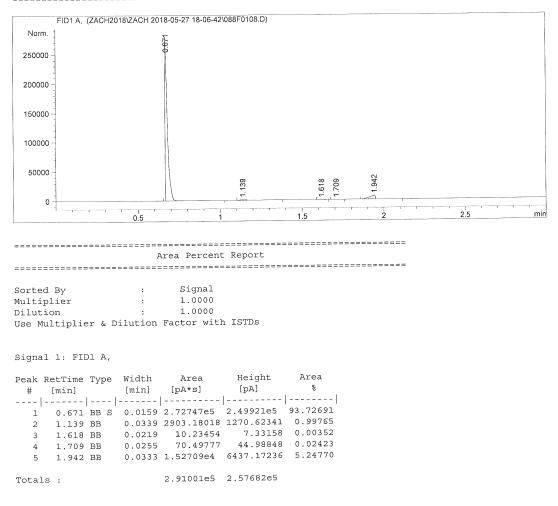
Acq. Operator	:	Zach Taylor	Seq. Line	:	1	
Acq. Instrument	:	Instrument 1	Location	:	Vial 88	
Injection Date	:	27-May-18, 18:31:53	Inj	:	7	
-		-	Inj Volume	:	1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-2	7	18-06-42\Z1.M	
Last changed	:	5/27/2018 5:15:20 PM by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M				
Last changed	:	7/6/2018 9:23:05 PM by	/ Zach Taylor			
		(modified after loading	ng)			
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 10:17:46 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\088F0108.D Sample Name: 2-thiophene

pro name, a entrephene							
Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 88				
Injection Date	:	27-May-18, 18:35:55	Inj: 8				
			Inj Volume : l µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	B\ZACH 2018-05-27 18-06-42\Z1.M				
Last changed	:	5/27/2018 5:15:20 PM by	5/27/2018 5:15:20 PM by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M					
Last changed	:	7/6/2018 9:23:05 PM by Z	ach Taylor				
		(modified after loading)					
Method Info	:	Alditol lab.					

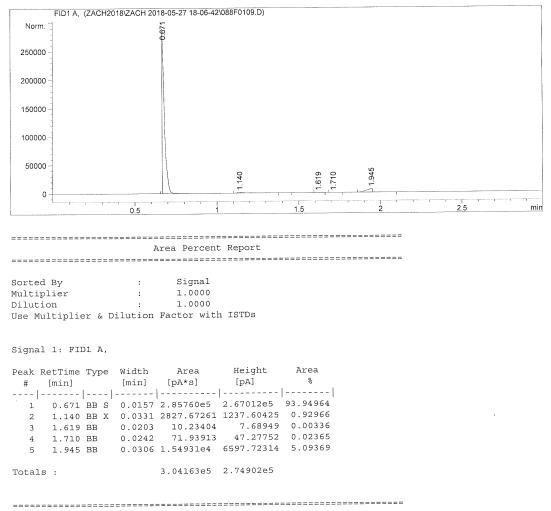


*** End of Report ***

Instrument 1 7/6/2018 10:17:48 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\088F0109.D Sample Name: 2-thiophene

Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	27-May-18, 18:39:54	Inj: 9			
5			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-27 18-06-42\Z1.M			
Last changed	:	5/27/2018 5:15:20 PM by	5/27/2018 5:15:20 PM by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M			
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor			
		(modified after loading	g)			
Method Info	:	Alditol lab.				

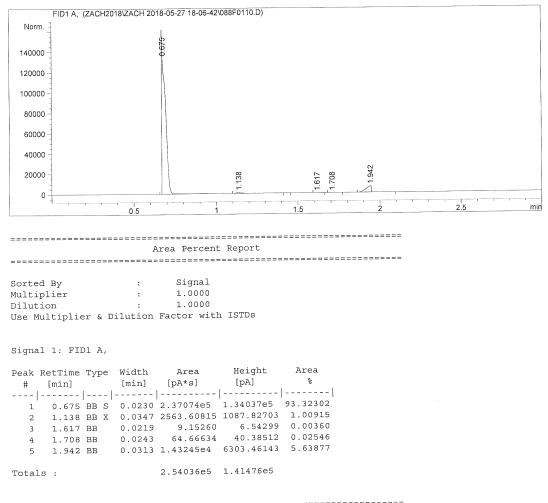


*** End of Report ***

Instrument 1 7/6/2018 10:17:49 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\088F0110.D Sample Name: 2-thiophene

pre Name: z-chrophene							
Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 88				
Injection Date	:	27-May-18, 18:43:57	Inj : 10				
5			Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-27 18-06-42\Z1.M				
Last changed	:	5/27/2018 5:15:20 PM k	5/27/2018 5:15:20 PM by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	C:\CHEM32\1\METHODS\Z4.M				
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor				
		(modified after loadin	ng)				
Method Info	:	Alditol lab.					

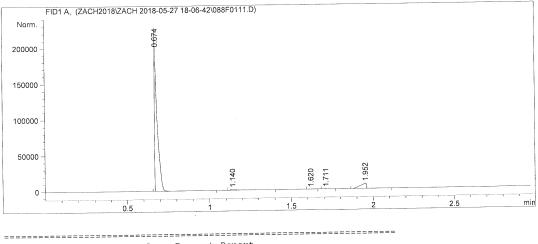


*** End of Report ***

Instrument 1 7/6/2018 10:17:51 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\088F0111.D Sample Name: 2-thiophene

Acq. Operator	: Zach Taylor				
Acq. Instrument	: Instrument 1 Location : Vial 88				
	Inj Volume : 1 µl				
Acg. Method	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\Z1.M				
Last changed					
Analysis Method	C:\CHEM32\1\METHODS\Z4.M				
Last changed	: 7/6/2018 9:23:05 PM by Zach Taylor				
9	(modified after loading)				
Method Info	Alditol lab.				
Injection Date Acq. Method Last changed Analysis Method Last changed	<pre>Instrument 1 Inj Volume : 1 µl C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-27 18-06-42\Z1.N 5/27/2018 5:15:20 PM by Zach Taylor C:\CHEM32\1\METHODS\Z4.M 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)</pre>				



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

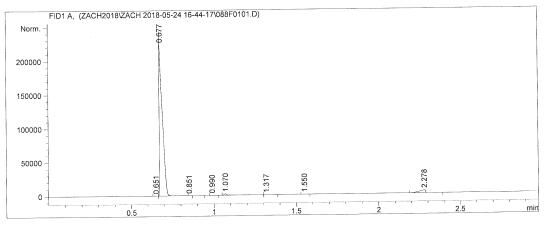
Signal 1: FID1 A,

Peak RetTime # [min] 1 0.674 2 1.140 3 1.620	[min] BB S 0.016 BB 0.032	[pA*s] - 1 2.33890e5 6 2842.30420	1.98515e5 1263.49426 8.54654	l
4 1.711 5 1.952 Totals :		7 81.22066 5 1.77307e4 2.54556e5	7266.62256	
		*** End of	======================================	

Instrument 1 7/6/2018 10:17:53 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-44-17\088F0101.D Sample Name: 3-furyl

Acq. Operator :		line : 1					
Acq. Instrument :	Instrument 1 Locat	ion : Vial 88					
Injection Date :	24-May-18, 16:45:17	Inj: 1					
5		ume : 1 µl					
Acq. Method :	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-C)5-24 16-44-17\Z1.M					
Last changed :	5/24/2018 3:54:01 PM by Zach Taylor						
Analysis Method :	C:\CHEM32\1\METHODS\Z4.M						
Last changed :	7/6/2018 9:23:05 PM by Zach Taylor						
	(modified after loading)						
Method Info :	Alditol lab.						



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

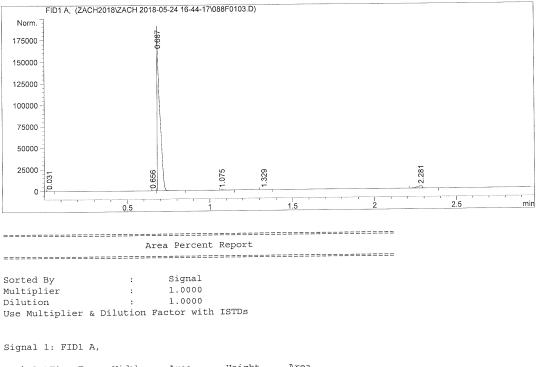
Peak Re # [tTime [min]	Тур	be	Width [min]	Area [pA*s]	Height [pA]	Area %
			- -				
1	0.651	BV	,	0.0185	18.90465	17.17277	0.00605
2	0.677	VB	S	0.0223	2.99509e5	2.23944e5	95.80409
3	0.851	BB	Х	0.0114	1.48600	2.17758	0.00048
4	0.990	BB		0.0157	1.52488	1.41859	0.00049
5	1.070	вv		0.0178	2422.86548	2053.43896	0.77500
6	1.317	VB		0.0220	11.28795	6.99794	0.00361
7	1.550	BB		0.0171	1.13287	1.00952	0.00036
8	2.278	BB		0.0336	1.06603e4	4200.68262	3.40992
Totals	:				3.12627e5	2.30227e5	

Instrument 1 7/6/2018 10:19:14 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-44-17\088F0102.D Sample Name: 3-furyl _____ Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 24-May-18, 16:49:17 Inj: 2 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 16-44-17\Z1.M Acq. Method : 5/24/2018 3:54:01 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-24 16-44-17\088F0102.D) Norm. 99 200000 150000 100000 50000 2.290 559 0.857 0.996 074 0.041 0 2.5 min 0.5 Area Percent Report Signal Sorted By : Multiplier 1.0000 : Dilution 1.0000 Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area [pA*s] [pA] 8 [min] [min] # ____ ____| 0.0139 3.59028 4.22612 0.00115 0.041 BB 1 64.93539 0.02237 69.76203 0.653 BV 0.0149 2 0.681 VB S 0.0235 2.99849e5 2.12996e5 96.14801 3 1.72095 2.26352 0.00055 4 0.857 BB X 0.0127 0.996 BB 0.0140 1.34387 1.35412 0.00043 5 0.0177 1490.67834 1266.48352 0.47799 1.074 BB 6 4.92900 5.04891 0.00158 0.0146 7 1.325 BB 2.54644 1.49159 0.00082 8 1.559 BB 0.0247 0.0343 1.04383e4 4126.03906 3.34709 9 2.290 BB 3.11862e5 2.18468e5 Totals : Page 1 of 2 Instrument 1 7/6/2018 10:19:15 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-44-17\088F0103.D Sample Name: 3-furyl

pre Name: 3-ruryr						
Acq. Operator	: Zach Taylor	Seq. Line : 1				
Acq. Instrument	: Instrument 1	Location : Vial 88				
Injection Date	: 24-May-18, 16:53:18	Inj: 3				
5	-	Inj Volume : 1 µl				
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZA	CH 2018-05-24 16-44-17\Z1.M				
Last changed	: 5/24/2018 3:54:01 PM by Zach	Taylor				
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M					
Last changed	: 7/6/2018 9:23:05 PM by Zach	Taylor				
-	(modified after loading)					
Method Info	: Alditol lab.					

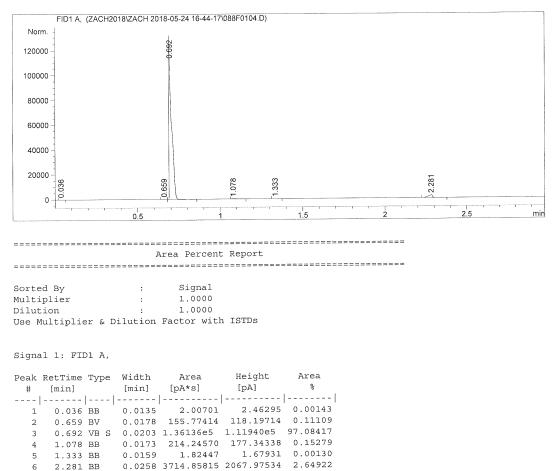


Peak Re	etTime	Type	Width	Area	Height	Area
#	[min]		[min]	[pA*s]	[pA]	8
1	0.031	BB	0.0135	2.11346	2.58230	0.00097
2	0.656	BV	0.0153	224.85445	202.92139	0.10363
3	0.687	VB S	0.0216	2.10529e5	1.62460e5	97.02593
4	1.075	BB	0.0165	489.51514	430.13437	0.22560
5	1.329	BB	0.0155	2.65162	2.68113	0.00122
6	2.281	BB	0.0285	5734.06592	2824.75244	2.64264
Totals	:			2.16982e5	1.65924e5	

Instrument 1 7/6/2018 10:19:17 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-44-17\088F0104.D Sample Name: 3-furyl

Acq. Operator	:	Zach Taylor	Seq. Line : 1		
Acq. Instrument	: :	Instrument 1	Location : Vial 88		
Injection Date	:	24-May-18, 16:57:19	Inj: 4		
			Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-24 16-44-17\Z1.M		
Last changed	:	5/24/2018 3:54:01 PM b	y Zach Taylor		
Analysis Method	: f	C:\CHEM32\1\METHODS\Z4	. M		
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor		
		(modified after loadin	g)		
Method Info	:	Alditol lab.	и.		



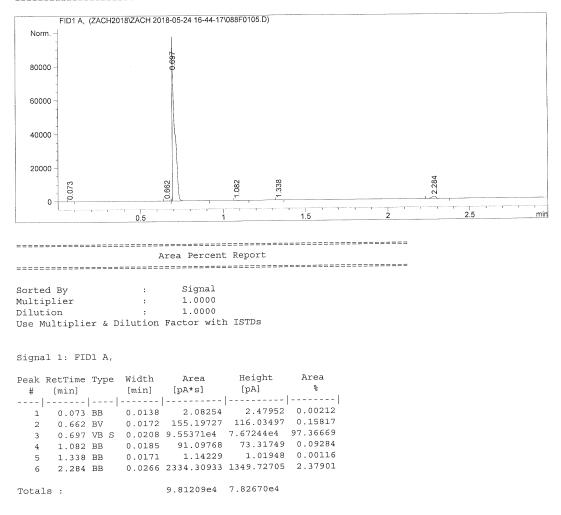
1.40224e5 1.14308e5

Instrument 1 7/6/2018 10:19:19 PM Zach Taylor

Totals :

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-44-17\088F0105.D Sample Name: 3-furyl

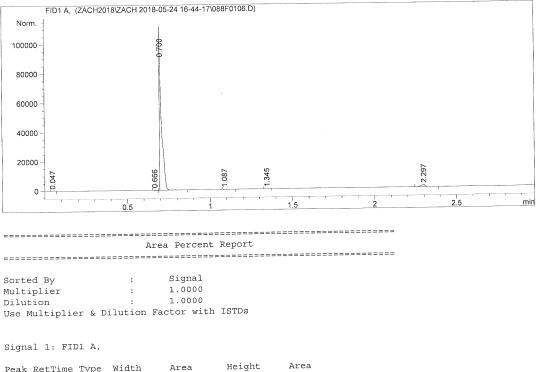
:	Zach Taylor	Seq. Line : 1		
:	Instrument 1	Location : Vial 88		
:	24-May-18, 17:01:18	Inj : 5		
		Inj Volume : 1 µl		
:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-24 16-44-17\Z1.M		
:	5/24/2018 3:54:01 PM b	y Zach Taylor		
:	C:\CHEM32\1\METHODS\Z4	. M		
:	7/6/2018 9:23:05 PM by	Zach Taylor		
	(modified after loadin	g)		
:	Alditol lab.			
	: : : :	: 5/24/2018 3:54:01 PM b : C:\CHEM32\1\METHODS\Z4 : 7/6/2018 9:23:05 PM by		



Instrument 1 7/6/2018 10:19:21 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-44-17\088F0106.D Sample Name: 3-furyl

pre Name: 3-ruryr						
Acq. Operator	: Zach Taylor	Seq. Line : 1				
Acq. Instrument	: Instrument 1	Location : Vial 88				
Injection Date	: 24-May-18, 17:05:19	Inj: 6				
	-	Inj Volume : 1 µl				
Acq. Method	: C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-24 16-44-17\Z1.M				
Last changed	: 5/24/2018 3:54:01 PM b					
Analysis Method	: C:\CHEM32\1\METHODS\Z4	, M				
Last changed	: 7/6/2018 9:23:05 PM by	Zach Taylor				
	(modified after loadin	.g)				
Method Info	: Alditol lab.					



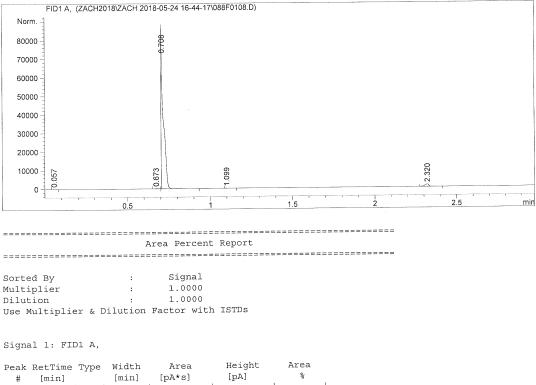
Peak R	etTime	Type	Width	Area	Herguit	MICA
#	[min]		[min]	[pA*s]	[pA]	8
1	0.047	вв	0.0130	2.24496	2,68031	0.00234
2	0.666	вv	0.0139	120.99589	122.45737	0.12597
3	0.700	VB S	0.0174	9.33835e4	8.96353e4	97.21882
4	1.087	BB	0.0159	62.33390	57.21244	0.06489
5	1.345		0.0157	1.22247	1.22176	0.00127
6	2.297		0.0267	2484.66772	1486.05750	2.58671
Totals	:			9.60550e4	9.13049e4	

Instrument 1 7/6/2018 10:19:22 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-44-17\088F0107.D Sample Name: 3-furyl Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Injection Date : 24-May-18, 17:09:18 Inj : 7 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 16-44-17\Z1.M Acq. Method Last changed : 5/24/2018 3:54:01 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-24 16-44-17\088F0107.D) Norm. 80000 202-0 60000 40000 20000 2.307 .093 088 ٥ 2.5 min 0.5 Area Percent Report Sorted By : Signal Multiplier 1.0000 : Dilution 1.0000 : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area [pA] 8 [min] [pA*s] # [min] _ _ _ _ | _ _ _ _ _ _ _ | _ _ _ _ | _____ 2.54405 0.00255 2.16548 1 0.088 BB 0.0131 56.69073 113.85971 0.06686 0.669 BV 8.21e-3 2 74.85921 0.07686 3 0.683 VV 0.0134 65.16460 0.705 VB S 0.0200 8.24715e4 6.88710e4 97.27165 4 34.98070 29.16550 0.04126 0.0172 1.093 BB 5 0.0264 2154.22534 1255.70105 2.54082 6 2.307 BB 8.47847e4 7.03471e4 Totals : Page 1 of 1 Instrument 1 7/6/2018 10:19:24 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-44-17\088F0108.D Sample Name: 3-furyl

pie Name. 5-iulyi					
	= == :				
Acq. Operator	:	Zach Taylor	Seq. Line : 1		
Acq. Instrument	:	Instrument 1	Location : Vial 88		
Injection Date	:	24-May-18, 17:13:19	Inj: 8		
		-	Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\Z	ACH 2018-05-24 16-44-17\Z1.M		
Last changed	:	5/24/2018 3:54:01 PM by Zac	h Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M			
Last changed	:	7/6/2018 9:23:05 PM by Zach	Taylor		
-		(modified after loading)			
Method Info	:	Alditol lab.			



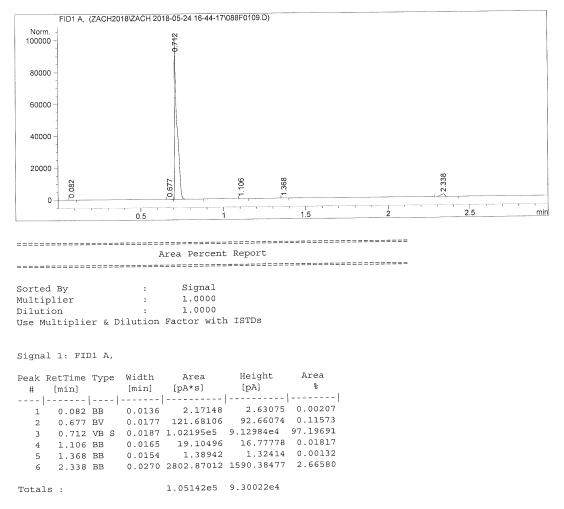
Реак к	etrime	тур	e.	WIGCH	Area	nergne	THE COL
#	[min]			[min]	[pA*s]	[pA]	8
-			-				
1	0.057	BB		0.0137	2.05396	2.46863	0.00250
2	0.673	BV		0.0168	116.26274	89.20027	0.14126
3	0.708	VB	s	0.0185	7.99887e4	7.19391e4	97.18964
4	1.099	BB		0.0179	23.09594	18.30025	0.02806
5	2.320	BB		0.0264	2171.56104	1266.31458	2.63854
Totals	:				8.23017e4	7.33154e4	
						=======================================	
						Decements whether	

*** End of Report ***

Instrument 1 7/6/2018 10:19:26 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-44-17\088F0109.D Sample Name: 3-furyl

pre Name, 5 ratyr					
	= == :				
Acq. Operator	:	Zach Taylor	Seq. Line : 1		
Acq. Instrument	:	Instrument 1	Location : Vial 88		
Injection Date	:	24-May-18, 17:17:19	Inj: 9		
			Inj Volume : 1 µl		
Acq. Method			ZACH 2018-05-24 16-44-17\Z1.M		
Last changed	:	5/24/2018 3:54:01 PM by Za	ch Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M			
Last changed	:	7/6/2018 9:23:05 PM by Zac	h Taylor		
		(modified after loading)			
Method Info	:	Alditol lab.			



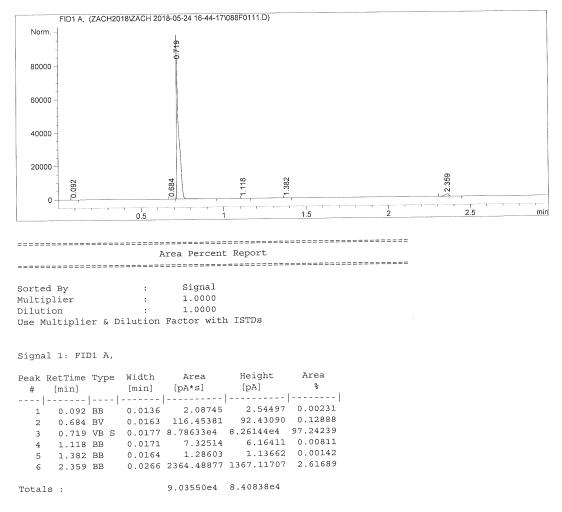
Instrument 1 7/6/2018 10:19:27 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-44-17\088F0110.D Sample Name: 3-furyl Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Inj : 10 Injection Date : 24-May-18, 17:21:20 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 16-44-17\Z1.M Acq. Method : 5/24/2018 3:54:01 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-24 16-44-17\088F0110.D) Norm. 140 80000 70000 60000 50000 40000 30000 20000 2.346 10000 -.112 <u>9</u>690 680 0 -r ----- 1 ---- - 1 2.5 min 05 Area Percent Report Sorted By Signal 1.0000 Multiplier : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area % [min] [pA*s] [pA] # [min] -----| 2.35731 0.00224 1.92410 0.069 BB 1 0.0127 94.41971 0.14991 0.680 BV 0.0175 128.90247 2 0.716 VB S 0.0194 8.37346e4 7.20206e4 97.37972 3 9.82640 7.97642 0.01143 1.112 BB 0.0176 4 2.346 BB 0.0267 2112.47021 1213.29016 2.45671 5 8.59878e4 7.33387e4 Totals : *** End of Report ***

Instrument 1 7/6/2018 10:19:29 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-44-17\088F0111.D Sample Name: 3-furyl

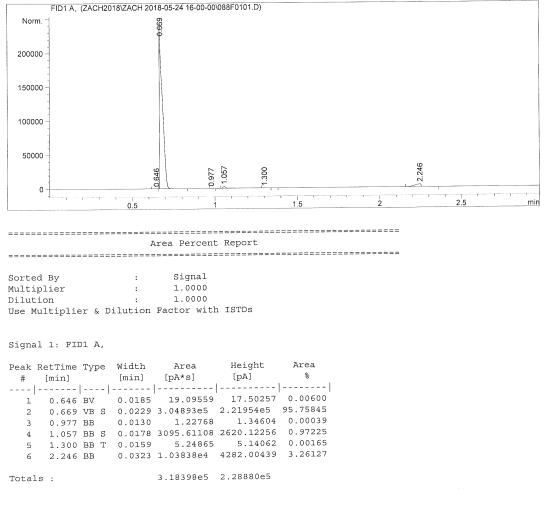
pre Name. 5 rary:					
	= = =				
Acq. Operator	:	Zach Taylor	Seq. Line : l		
Acq. Instrument	:	Instrument 1	Location : Vial 88		
Injection Date	:	24-May-18, 17:25:20	Inj : 11		
		-	Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-24 16-44-17\Z1.M		
Last changed	:	5/24/2018 3:54:01 PM k	y Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M		
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor		
		(modified after loadin	ıg)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 10:19:31 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-00-00\088F0101.D Sample Name: 3-furyl

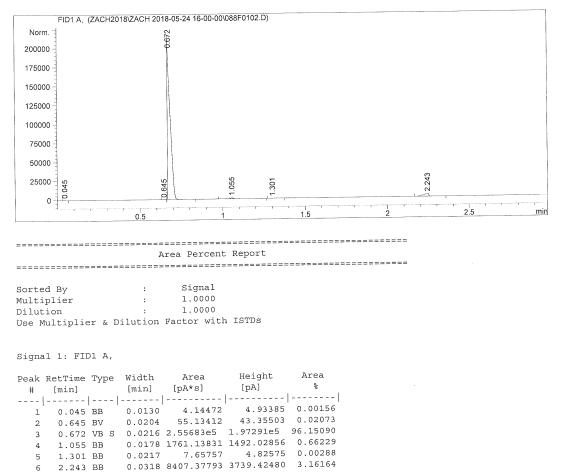
Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	24-May-18, 16:01:01	Inj : 1			
			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-24 16-00-00\Z1.M			
Last changed	:	5/24/2018 3:54:01 PM b	y Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M			
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor			
		(modified after loadin	g)			
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 10:20:16 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-00-00\088F0102.D Sample Name: 3-furyl

:	Zach Taylor	Seq. Line : 1						
:	Instrument 1	Location : Vial 88						
		Inj : 2						
	-	Inj Volume : 1 µl						
:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-24 16-00-00\Z1.M						
:	5/24/2018 3:54:01 PM]	oy Zach Taylor						
:	C:\CHEM32\1\METHODS\Z4	4.M						
:	7/6/2018 9:23:05 PM by	y Zach Taylor						
	(modified after loading	ng)						
:	Alditol lab.							
	:::::::::::::::::::::::::::::::::::::::	<pre>: Zach Taylor : Instrument 1 : 24-May-18, 16:05:00 : C:\Chem32\1\DATA\ZACH: : 5/24/2018 3:54:01 PM 1 : C:\CHEM32\1\METHODS\Z- : 7/6/2018 9:23:05 PM by (modified after loadin : Alditol lab.</pre>						



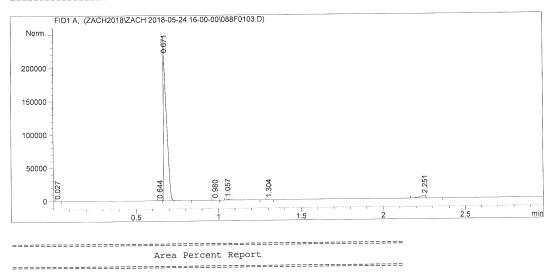
2.65918e5 2.02575e5

Instrument 1 7/6/2018 10:20:17 PM Zach Taylor

Totals :

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-00-00\088F0103.D Sample Name: 3-furyl

Acq. Operator	:	Zach Taylor	Seq. Line : 1					
Acq. Instrument	:	Instrument 1	Location : Vial 88					
Injection Date	:	24-May-18, 16:09:00	Inj : 3					
-		-	Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-24 16-00-00\Z1.M					
Last changed	:	5/24/2018 3:54:01 PM by	Zach Taylor					
		$C: \ CHEM32 \ 1 \ ETHODS \ 24$.						
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor					
-		(modified after loading	.)					
Method Info	:	Alditol lab.						



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

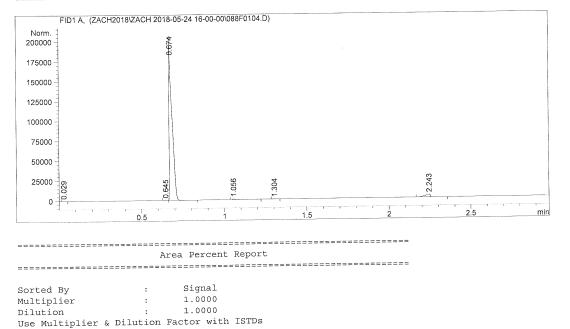
Signal 1: FID1 A,

Peak Re # [tTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
ı	0.027	BB	0.0129	2.25017	2.69842	0.00070
2	0.644	вv	0.0188	207.84885	183.71741	0.06497
3	0.671	VB S	0.0235	3.08670e5	2.19118e5	96.49230
4	0.980	вв	0.0134	1.13351	1.20009	0.00035
5	1.057	BB	0.0167	1487.35339	1287.89392	0.46496
6	1.304	BB	0.0141	4.20089	4.50202	0.00131
7	2.251	BB	0.0328	9518.01855	4085.58057	2.97540
Totals	:			3.19891e5	2.24683e5	

Instrument 1 7/6/2018 10:20:20 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-00-00\088F0104.D Sample Name: 3-furyl

Acq. Operator Acq. Instrument	:	Instrument 1	Seq. Line : 1 Location : Vial 88
Injection Date		24-May-18, 16:13:00	Inj : 4 Inj Volume : l µl
Analysis Method	: :	C:\Chem32\1\DATA\ZACH20 5/24/2018 3:54:01 PM by C:\CHEM32\1\METHODS\Z4. 7/6/2018 9:23:05 PM by	M
Last changed Method Info		(modified after loading Alditol lab.	



Signal 1: FID1 A,

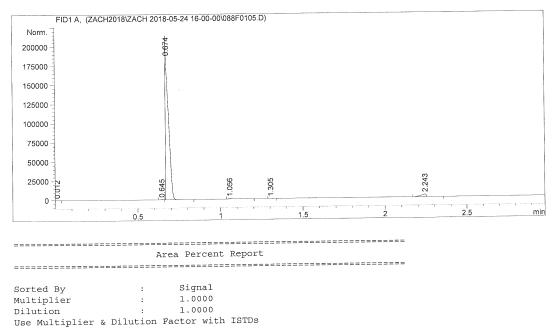
Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.029	BB	0.0130	1.69087	2.00974	0.00067
2	0.645	вv	0.0203	149.68848	125.30920	0.05926
3	0.674		0.0226	2.44201e5	1.80154e5	96.67353
4	1.056		0.0176	903.31146	773.20135	0.35760
5	1.304		0.0144	3.33250	3.45606	0.00132
6	2.243			7344.77344	3419,70337	2.90763
0	2.245	00	0.0200			
Totals	:			2.52604e5	1.84477e5	

Totals :

Instrument 1 7/6/2018 10:20:22 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-00-00\088F0105.D Sample Name: 3-furyl

pre Name. 5 ruryr				
	= =		=======================================	
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	24-May-18, 16:17:01	Inj: 5	
		-	Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-24 16-00-00\Z1.M	
Last changed	:	5/24/2018 3:54:01 PM by	Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M	
Last changed		7/6/2018 9:23:05 PM by		
-		(modified after loading)	
Method Info	:	Alditol lab.		



Signal 1: FID1 A,

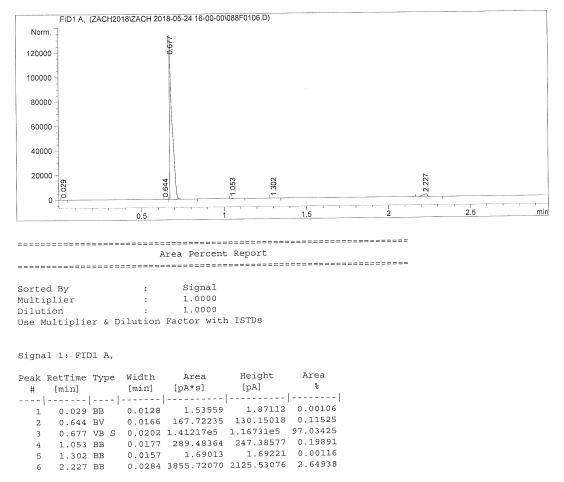
Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
ı	0.012	BB	0.0127	1.34883	1.80094	0.00049
2	0.645	вv	0.0203	259.40781	217.22353	0.09475
3	0.674		0.0239	2.65641e5	1.85265e5	97.02881
4	1.056	BB	0.0176	713.22729	612.47119	0.26052
5	1.305		0.0146	3.25681	3.34061	0.00119
6	2.243		0.0303	7157.13135	3377.87744	2.61424
Totals	:			2.73775e5	1.89478e5	

Instrument 1 7/6/2018 10:20:23 PM Zach Taylor

.

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-00-00\088F0106.D Sample Name: 3-furyl

ipre name. 5 faryr				
	= = :			
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	24-May-18, 16:21:01	Inj: 6	
5			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	.8\ZACH 2018-05-24 16-00-00\Z1.M	
Last changed	:	5/24/2018 3:54:01 PM by	Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.N	1	
Last changed	:	7/6/2018 9:23:05 PM by 2 (modified after loading)		
Method Info	:	Alditol lab.		

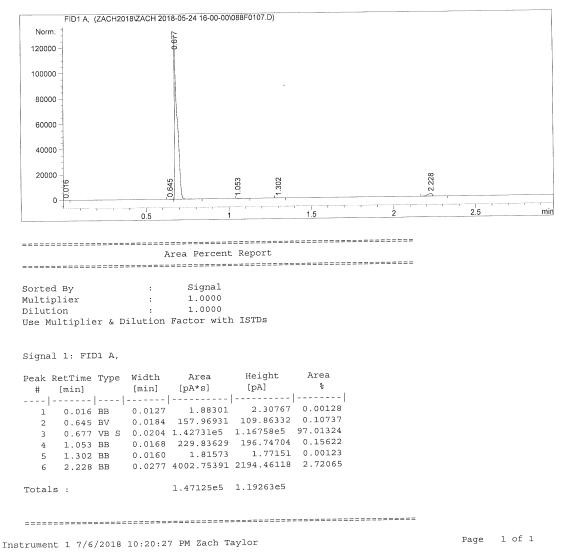


Totals : 1.45533e5 1.19237e5

Instrument 1 7/6/2018 10:20:25 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-00-00\088F0107.D Sample Name: 3-furyl

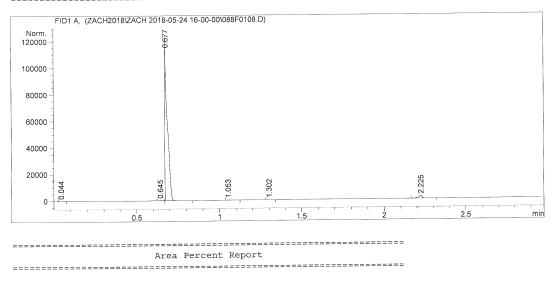
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
		24-May-18, 16:25:02	Inj: 7
2		-	Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-24 16-00-00\Z1.M
Last changed	:	5/24/2018 3:54:01 PM b	y Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
-		(modified after loadin	lg)
Method Info	:	Alditol lab.	



Furan-3-carboxaldehyde Sequence #2 – Run #8

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-00-00\088F0108.D Sample Name: 3-furyl

Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
-		24-May-18, 16:29:01	Inj : 8
2		* .	Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-24 16-00-00\Z1.M
Last changed	:	5/24/2018 3:54:01 PM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M
		7/6/2018 9:23:05 PM by	
		(modified after loading)
Method Info	:	Alditol lab.	



Sorted By	:	Signal	
Multiplier	:	1.0000	
Dilution	:	1.0000	
Use Multiplier	& Dilution	Factor with	ISTDs

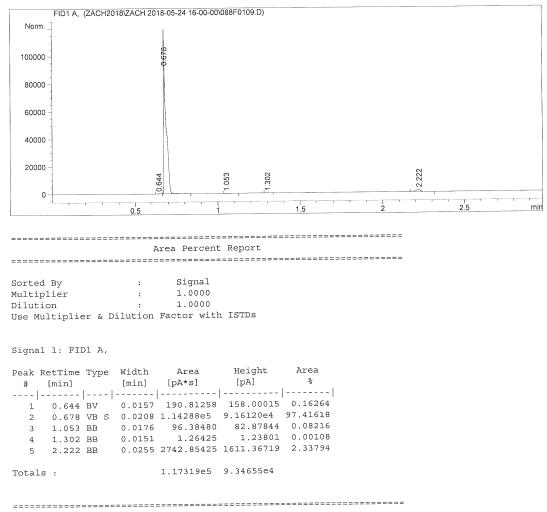
Signal 1: FID1 A,

Peak Re	tTime	Type	Width	Area	Height	Area
#	[min]		[min]	[pA*s]	[pA]	00
		-				
1	0.044	BB	0.0137	1.95811	2.34479	0.00150
2	0.645	BV	0.0170	161.71590	122.86069	0.12385
3	0.677	VB S	0.0186	1.26864e5	1.13527e5	97.15716
4	1.053	BB	0.0173	150.86766	132.39185	0.11554
5	1.302	BB	0.0152	1.59700	1.55555	0.00122
6	2.225	BB	0.0259	3395.91626	1947.38513	2.60073
Totals	:			1.30576e5	1.15734e5	

Instrument 1 7/6/2018 10:20:29 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-00-00\088F0109.D Sample Name: 3-furyl

Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	24-May-18, 16:33:02	Inj: 9
-			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-24 16-00-00\Z1.M
Last changed	:	5/24/2018 3:54:01 PM b	y Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
-		(modified after loadin	g)
Method Info	:	Alditol lab.	

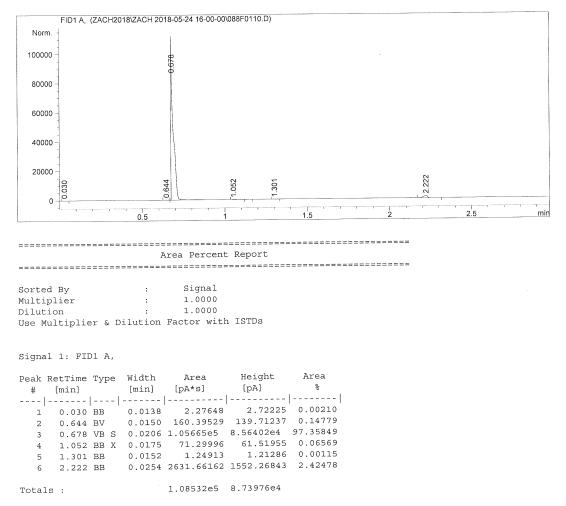


*** End of Report ***

Instrument 1 7/6/2018 10:20:31 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-00-00\088F0110.D Sample Name: 3-furyl

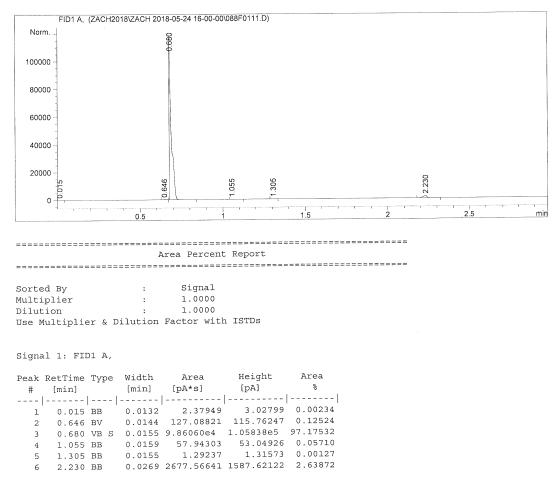
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	24-May-18, 16:37:02	Inj : 10	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-24 16-00-00\Z1.M	
Last changed	:	5/24/2018 3:54:01 PM k	y Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M	
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor	
		(modified after loadir	ıg)	
Method Info	:	Alditol lab.		



Instrument 1 7/6/2018 10:20:33 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 16-00-00\088F0111.D Sample Name: 3-furyl

Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	24-May-18, 16:41:03	Inj : 11	
5		a .	Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH	H2018\ZACH 2018-05-24 16-00-00\Z1.M	
Last changed	:	5/24/2018 3:54:01 PM	by Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\2	24.M	
Last changed	:	7/6/2018 9:23:05 PM k	by Zach Taylor	
		(modified after load:	ing)	
Method Info	:	Alditol lab.		



Totals : 1.01472e5 1.07598e5

Instrument 1 7/6/2018 10:20:34 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\088F0101.D Sample Name: 3-furyl

	0.5	1	1.5	2	2.5	m
25000 -	0.693	1.047	1.395		2.410	
50000					0	
75000						
100000 -						
125000						
150000						
175000						
200000	o					
Norm.	717					
	ZACH2018\ZACH 2018-05-24 1	7-28-44\088F0101.[D)			
FID1 A, (2	ZACH2018\ZACH 2018-05-24 1		======================================			
thod Info	: Alditol lab.					
	(modified afte:		n 10/101			
alysis Methc st changed	od : C:\CHEM32\1\ME : 7/6/2018 9:23:	THODS\Z4.M)5 PM by Zac	h Tavlor			
st changed	: 5/24/2018 3:54	:01 PM by Za	ch Taylor			
q. Method	: C:\Chem32\1\DA	TA\ZACH2018\	Inj Volume ZACH 2018-05-24		. M	
	: 24-May-18, 17:2	29:46	Inj			
q. Operator g. Instrumen	: Zach Taylor t : Instrument 1		Seq. Line Location	: 1 : Vial 88		

Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

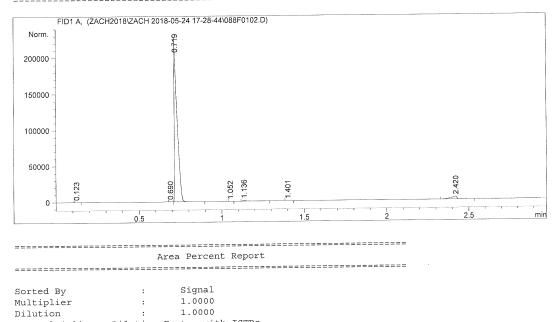
Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.693	BV	0.0178	13.31533	11.94141	0.00489
2	0.717	VB S	0.0228	2.60928e5	1.90466e5	95.84301
3	1.047	BB	0.0128	1.12635	1.26713	0.00041
4	1.131	BB	0.0177	1752.52600	1493.33459	0.64373
5	1.395	BB	0.0152	4.66762	4.53782	0.00171
6	2.410	BB	0.0354	9545.59277	3738.98999	3.50624

Totals : 2.72246e5 1.95716e5

Instrument 1 7/6/2018 10:21:53 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\088F0102.D Sample Name: 3-furyl

=======================================							
Acq. Operator	:	Zach Taylor	Seq. Line : 1				
Acq. Instrument	:	Instrument 1	Location : Vial 88				
Injection Date	:	24-May-18, 17:33:44	Inj : 2				
2		-	Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-24 17-28-44\Z1.M				
Last changed	:	5/24/2018 3:54:01 PM }	oy Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	4.M				
Last changed	:	7/6/2018 9:23:05 PM by	y Zach Taylor				
		(modified after loading	ng)				
Method Info	:	Alditol lab.					



Signal 1: FID1 A,

Dilution

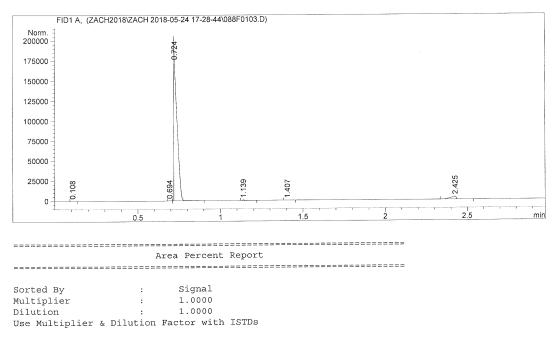
Peak Re # [tTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.123	BB	0.0141	3.41739	3.94559	0.00120
2	0.690	вv	0.0148	89.31220	84.13363	0.03143
3	0.719	VB S	0.0223	2.73411e5	2.04431e5	96.21813
4	1.052	BB	0.0131	1.13135	1.23650	0.00040
5	1.136	BB	0.0177	1258.47095	1071.95020	0.44288
6	1.401	BB	0.0157	4.51875	4.51571	0.00159
7		BB	0.0333	9389.63281	3732.94385	3.30437
Totals	:			2.84158e5	2.09329e5	

: Use Multiplier & Dilution Factor with ISTDs

Instrument 1 7/6/2018 10:21:55 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\088F0103.D Sample Name: 3-furyl

Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	24-May-18, 17:37:44	Inj : 3			
			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-24 17-28-44\Z1.M			
Last changed	:	5/24/2018 3:54:01 PM	by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M			
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor			
		(modified after loadi	ng)			
Method Info	:	Alditol lab.				



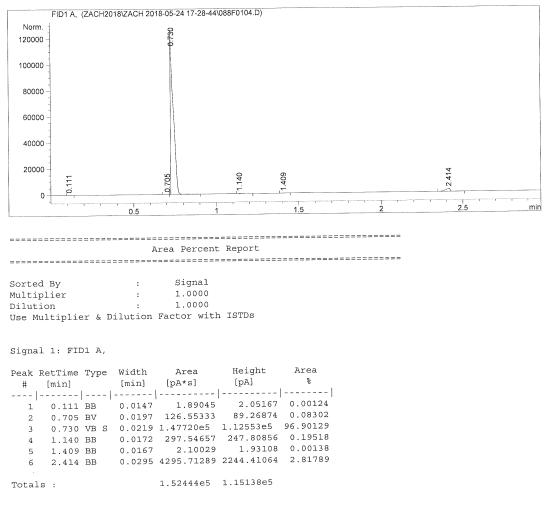
Signal 1: FID1 A,

Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.108	BB	0.0144	2.42180	2.71277	0.00092
2	0.694	BV	0.0200	116.36971	94.37130	0.04420
3	0.724	VB S	0.0244	2.53977e5	1.73450e5	96.45809
4	1.139	BB	0.0166	767.21344	667.12970	0.29138
5	1.407	BB	0.0157	4.04642	4.02907	0.00154
6	2.425	BB	0.0321	8435.91602	3501.97144	3.20388
Totals	:			2.63303e5	1.77720e5	

Instrument 1 7/6/2018 10:21:57 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\088F0104.D Sample Name: 3-furyl

```
Seq. Line : 1
Acq. Operator : Zach Taylor
                                         Location : Vial 88
Acq. Instrument : Instrument 1
Injection Date : 24-May-18, 17:41:44
                                              Inj: 4
                                        Inj Volume : 1 µl
             : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\Z1.M
Acq. Method
Last changed
             : 5/24/2018 3:54:01 PM by Zach Taylor
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
             : 7/6/2018 9:23:05 PM by Zach Taylor
Last changed
               (modified after loading)
Method Info
             : Alditol lab.
```



Instrument 1 7/6/2018 10:21:58 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\088F0105.D
Sample Name: 3-furyl
    Acq. Operator : Zach Taylor
                                                 Seq. Line : 1
                                                 Location : Vial 88
   Acq. Instrument : Instrument 1
   Injection Date : 24-May-18, 17:45:46
                                                       Inj: 5
                                                Inj Volume : 1 µl
                  : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\Z1.M
   Acq. Method
   Last changed
                  : 5/24/2018 3:54:01 PM by Zach Taylor
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
                  : 7/6/2018 9:23:05 PM by Zach Taylor
    Last changed
                     (modified after loading)
    Method Info
                   : Alditol lab.
    FID1 A. (ZACH2018\ZACH 2018-05-24 17-28-44\088F0105.D)
      Norm.
                              7755
      80000
      70000
      60000
      50000
      40000
      30000
      20000
                                                                             2.409
                                          142
      10000
                              698
             082
                              õ
             o
         0
                                                                               2.5
                                                                                           min
                                                    1.5
                        0.5
    _____
                          Area Percent Report
    Signal
    Sorted By
                         :
                               1.0000
    Multiplier
                         :
                               1.0000
    Dilution
                         :
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
    Peak RetTime Type Width
                                         Height
                                                   Area
                               Area
                                                    8
                             [pA*s]
                                         [pA]
                      [min]
      # [min]
                                        ____
     ---|-----|----|-----|
                                          2.10952 0.00186
                              1.79070
                      0.0131
           0.082 BB
       1
                      0.0169 138.50285 111.35931 0.14369
           0.698 BV
       2

        0.735
        VB
        S
        0.0211
        9.37192e4
        7.41423e4
        97.22812

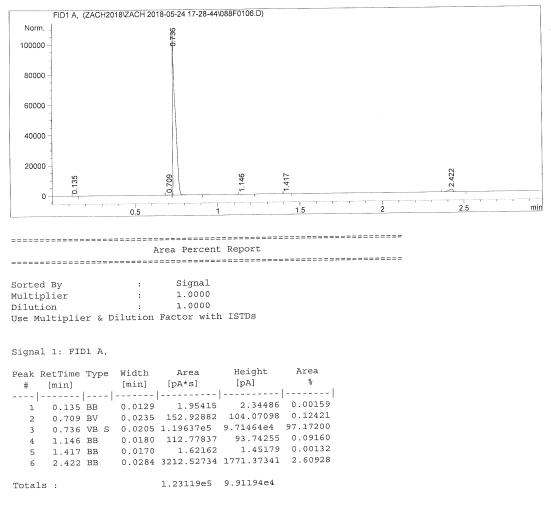
        1.142
        BB
        0.0183
        121.75637
        93.93419
        0.12631

        2.409
        BB
        0.0270
        2409.79248
        1367.02869
        2.50002

       3
       4
       5
                             9.63911e4 7.57168e4
     Totals :
     *** End of Report ***
                                                                              Page 1 of 1
 Instrument 1 7/6/2018 10:22:00 PM Zach Taylor
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\088F0106.D Sample Name: 3-furyl

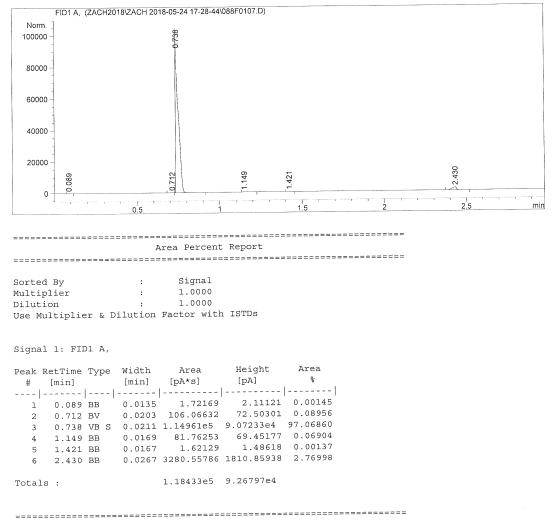
Acq. Operator	:	Zach Taylor	Seq. Line : 1			
Acq. Instrument	:	Instrument 1	Location : Vial 88			
Injection Date	:	24-May-18, 17:49:46	Inj: 6			
5		-	Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-24 17-28-44\Z1.M			
Last changed	:	5/24/2018 3:54:01 PM	by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M			
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor			
-		(modified after loadi	ng)			
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 10:22:02 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\088F0107.D Sample Name: 3-furyl

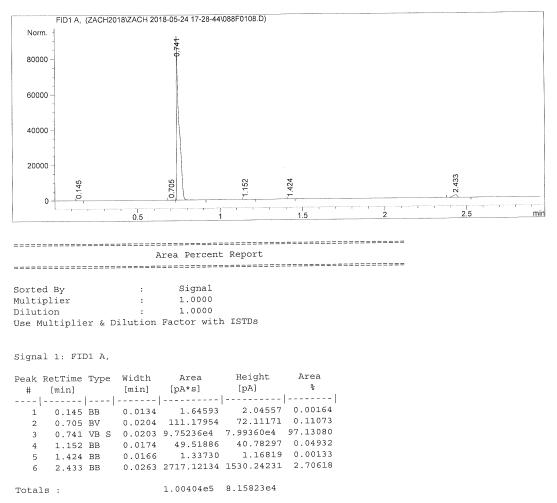
1 1			
	=		
Acq. Operator	:		
Acq. Instrument	:	Instrument 1 Location : Vial 88	
Injection Date	:	24-May-18, 17:53:48 Inj : 7	
-		Inj Volume : 1 µl	
Acq. Method		C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\Z1.M	
Last changed	:	5/24/2018 3:54:01 PM by Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)	
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:22:03 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\088F0108.D Sample Name: 3-furyl

```
Acq. Operator : Zach Taylor
                                         Seq. Line : 1
                                         Location : Vial 88
Acq. Instrument : Instrument 1
                                              Inj: 8
Injection Date : 24-May-18, 17:57:47
                                        Inj Volume : 1 µl
             : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\Z1.M
Acq. Method
Last changed
             : 5/24/2018 3:54:01 PM by Zach Taylor
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
             : 7/6/2018 9:23:05 PM by Zach Taylor
Last changed
               (modified after loading)
Method Info
             : Alditol lab.
```



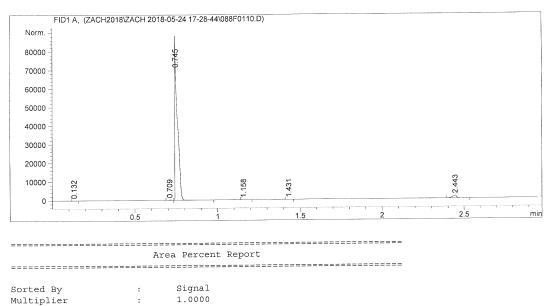
Instrument 1 7/6/2018 10:22:05 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\088F0109.D Sample Name: 3-furyl Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 24-May-18, 18:01:49 Inj: 9 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\Z1.M Acq. Method Last changed : 5/24/2018 3:54:01 PM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A. (ZACH2018\ZACH 2018-05-24 17-28-44\088F0109.D) Norm. 742 80000 60000 40000 20000 2.436 54 427 ²06 960 ö P 0 2.5 min 0.5 Area Percent Report _____ Signal Sorted By : 1.0000 Multiplier : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Height Area Area [pA*s] [pA] 8 [min] # [min] 2.13553 0.00189 1.73074 1 0.096 BB 0.0127 99.10055 0.13613 0.0171 124.47609 0.706 BV 2 0.742 VB S 0.0196 8.89489e4 7.56939e4 97.27310 1.154 BB 0.0162 30.64386 27.46622 0.03351 1.427 BB 0.0159 1.19193 1.09637 0.00130 3 4 5 0.0263 2335.50195 1367.94031 2.55407 2.436 BB 6 9.14424e4 7.71917e4 Totals :

Instrument 1 7/6/2018 10:22:07 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\088F0110.D Sample Name: 3-furyl

ylor Seq. Line : 1
ent 1 Location : Vial 88
18, 18:05:49 Inj : 10
Inj Volume : 1 µl
32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\Z1.M
18 3:54:01 PM by Zach Taylor
32\1\METHODS\Z4.M
8 9:23:05 PM by Zach Taylor
ed after loading)
lab.



Signal 1: FID1 A,

Dilution

Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
		-				
1	0.132	BB	0.0135	1.82729	2.25568	0.00191
2	0.709	BV	0.0191	134.32567	89.48921	0.14021
3	0.745	VB S	0.0221	9.32271e4	7.03300e4	97.30862
4	1.158	BB	0.0174	23.57952	19.44062	0.02461
5	1.431	BB	0.0170	1.17872	1.05840	0.00123
6	2.443	BB	0.0266	2417.58032	1394.55237	2.52342
Totals	:			9.58056e4	7.18368e4	

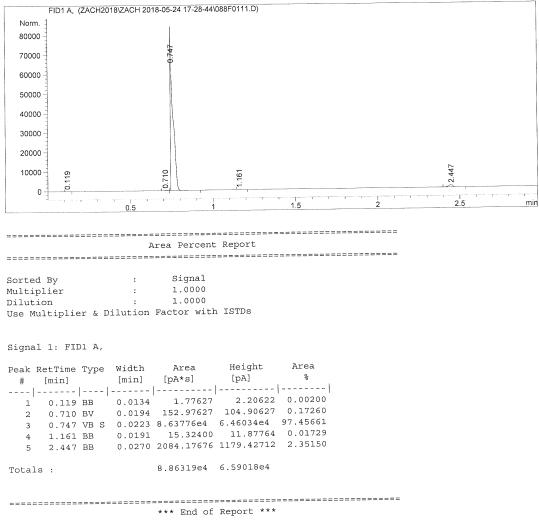
1.0000

: Use Multiplier & Dilution Factor with ISTDs

Instrument 1 7/6/2018 10:22:09 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\088F0111.D Sample Name: 3-furyl

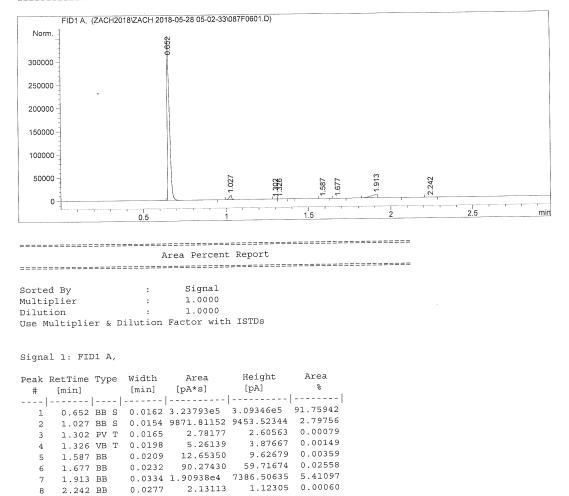
```
Seq. Line :
                                                    1
Acq. Operator : Zach Taylor
                                        Location : Vial 88
Acq. Instrument : Instrument 1
                                             Inj : 11
Injection Date : 24-May-18, 18:09:50
                                       Inj Volume : 1 µl
             : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-24 17-28-44\Z1.M
Acq. Method
             : 5/24/2018 3:54:01 PM by Zach Taylor
Last changed
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
           : 7/6/2018 9:23:05 PM by Zach Taylor
Last changed
               (modified after loading)
Method Info
             : Alditol lab.
```



Instrument 1 7/6/2018 10:22:11 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\087F0601.D Sample Name: 2

Pro Hamo, P			
	= = :		
Acq. Operator	:	Zach Taylor	Seq. Line : 6
Acq. Instrument	:	Instrument 1	Location : Vial 87
Injection Date	:	28-May-18, 05:25:40	Inj : l
2		-	Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-28 05-02-33\Z4.M
Last changed	:	5/28/2018 4:50:57 AM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
		(modified after loading)
Method Info	:	Alditol lab.	



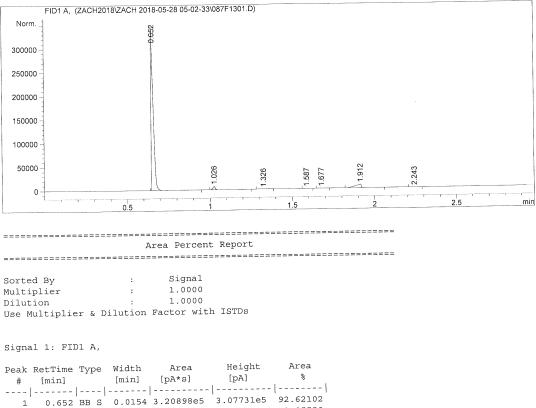
Instrument 1 7/6/2018 10:24:24 PM Zach Taylor

Totals :

3.52872e5 3.26263e5

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\087F1301.D Sample Name: 2

7
3\Z4.M

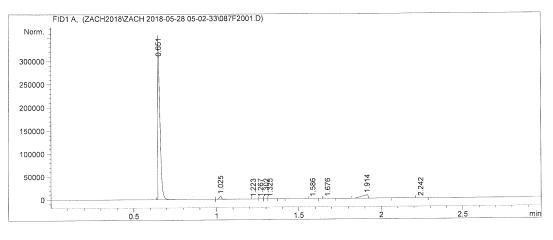


Peak Re # [tTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.652	BB S	0.0154	3.20898e5	3.07731e5	92.62102
2	1.026	BB S	0.0164	7121.58057	6679.17383	2.05550
3	1.326		0.0275	7.60818	3.78182	0.00220
4		BB	0.0211	12.27081	9.20650	0.00354
5	1.677		0.0234	86.17944	56.59902	0.02487
6	1.912	BB	0.0313	1.83358e4	7414.15283	5.29226
7	2.243	BB	0.0285	2.09689	1.06919	0.00061
/	2.243	ы	0.0205	2105000		
Totals	:			3.46464e5	3.21895e5	

Instrument 1 7/6/2018 10:24:27 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\087F2001.D Sample Name: 2

:	Zach Taylor	Seq. Line : 20					
:	Instrument 1	Location : Vial 87					
:	28-May-18, 06:32:37	Inj : l					
		Inj Volume : 1 µl					
:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-28 05-02-33\Z4.M					
;	5/28/2018 4:50:57 AM	by Zach Taylor					
;	C:\CHEM32\1\METHODS\Z	4.M					
:	7/6/2018 9:23:05 PM b	y Zach Taylor					
	(modified after loadi	ng)					
:	Alditol lab.						
	: : : : : :	<pre>: Zach Taylor : Instrument 1 : 28-May-18, 06:32:37 : C:\Chem32\1\DATA\ZACH : 5/28/2018 4:50:57 AM : C:\CHEM32\1\METHODS\Z : 7/6/2018 9:23:05 PM L (modified after loadi : Alditol lab.</pre>					



Area Percent Report

Sorted By	:	Signal	
Multiplier	:	1.0000	
Dilution	:	1.0000	
Use Multiplier a	& Dilution	Factor with ISTDs	

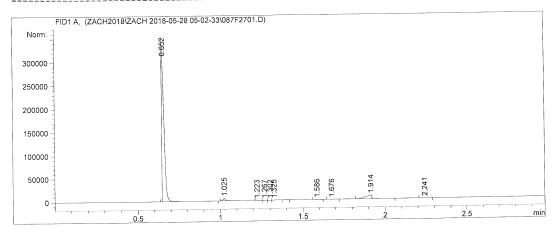
Signal 1: FID1 A,

Peak	RetTime	Туре		Width	Area	Height	Area
#	[min]			[min]	[pA*s]	[pA]	8
			-				
1	0.651	BV	S	0.0160	3.14798e5	3.06051e5	92.36357
2	1.025	VB	S	0.0145	6480.42480	6707.89355	1.90139
3	1.223	BV 3	Х	0.0132	1.16678	1.47291	0.00034
4	1.267	VV :	Х	0.0138	1.13676	1.37135	0.00033
5	1.302	vv :	Х	0.0160	3.01382	2.92368	0.00088
6	1.325	VB .	Х	0.0201	7.05365	4.87261	0.00207
7	1.586	BB		0.0190	12.93375	10.62256	0.00379
8	1.676	BB		0.0223	91.13455	63.75425	0.02674
9	1.914	BB		0.0353	1.94278e4	7422.10547	5.70022
10	2.242	BB		0.0274	2.22307	1.19046	0.00065

Instrument 1 7/6/2018 10:24:31 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\087F2701.D Sample Name: 2

Acq. Operator	:	Zach Taylor	Seq. Line : 27					
Acq. Instrument			Location : Vial 87					
		28-May-18, 07:06:09	Inj : 1					
		-	Inj Volume : 1 µl					
Acq. Method			H2018\ZACH 2018-05-28 05-02-33\Z4.M					
Last changed		5/28/2018 4:50:57 AM						
Analysis Method	:	C:\CHEM32\1\METHODS\2	Z4.M					
Last changed	:	7/6/2018 9:23:05 PM k	by Zach Taylor					
		(modified after load	ing)					
Method Info	:	Alditol lab.						



Area Percent Report

Sorted By		:	Signal
Multiplier		:	1.0000
Dilution		:	1.0000
Use Multiplier	&	Dilution	Factor with ISTDs

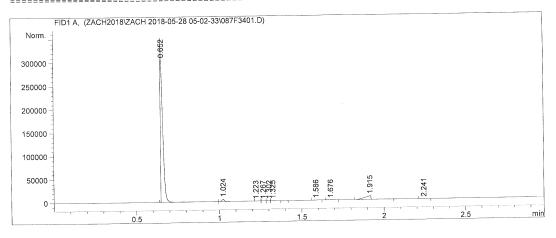
Signal 1: FID1 A,

	RetTime	Тур	е	Width	Area	Height [pA]	Area %
#	[min]			[min]	[pA*s]	[PA]	i i
			-				
1	0.652	BB -	s	0.0152	3.18287e5	3.08249e5	92.58882
2	1.025	BB	S	0.0148	5650.29639	5682.84277	1.64366
3	1.223	BV	т	0.0127	1.06829	1.40183	0.00031
4	1.267	ΡV	т	0.0139	1.01204	1.21743	0.00029
5	1.302	PV	T	0.0157	2.69860	2.69360	0.00079
6	1.325	PB	T	0.0197	6.43869	4.54324	0.00187
7	1.586	BB		0.0196	13.22240	10.44095	0.00385
, 8	1.676			0.0239	92.47747	61.82640	0.02690
9	1.914	BB		0.0337	1.97075e4	7527.77588	5.73287
-					2.19935	1.22295	0.00064
10	2.241	BB		0.0266	∠.19935	1.22295	0.00001

Instrument 1 7/6/2018 10:24:38 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\087F3401.D Sample Name: 2

	= =		
Acq. Operator	:	Zach Taylor	Seq. Line : 34
Acq. Instrument			Location : Vial 87
		28-May-18, 07:39:38	Inj : 1
	Ċ		Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-28 05-02-33\Z4.M
Last changed	:	5/28/2018 4:50:57 AM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor
		(modified after loadi	ng)
Method Info	:	Alditol lab.	



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

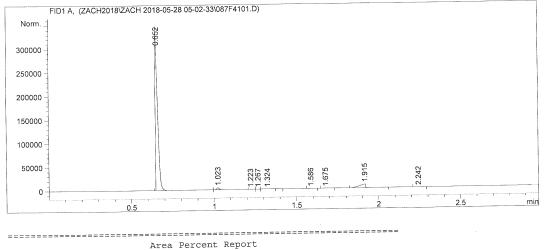
Signal 1: FID1 A,

Peak	RetTime	Тур	е	Width	Area	Height	Area
#	[min]			[min]	[pA*s]	[pA]	olo
			- [
1.	0.652	вv	s	0.0153	3.17629e5	3.05500e5	92.73811
2	1.024	VB	S	0.0149	5214.13818	5207.59912	1.52237
3	1.223	BV	х	0.0143	1.30478	1.52531	0.00038
4	1.267	vv	х	0.0149	1.16112	1.29685	0.00034
5	1.302			0.0161	2.96508	2.86270	0.00087
6	1.325			0.0207	7.29311	4.86848	0.00213
7	1.586			0.0194	13.02616	10.41864	0.00380
8	1.676			0.0225	91.45763	63.21734	0.02670
9	1.915			0.0317	1.95385e4	7778.12158	5.70467
10	2.241			0.0269	2.15645	1.18148	0.00063

Instrument 1 7/6/2018 10:24:47 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\087F4101.D Sample Name: 2

		2
Acq. Operator	Zach Taylor Seq. Line : 41	
Acq. Instrument	Instrument 1 Location : Vial 87	
	28-May-18, 08:13:11 Inj: 1	
	Inj Volume : 1 µl	
Acq. Method	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\	Z4.M
Last changed	5/28/2018 4:50:57 AM by Zach Taylor	
Analysis Method	C:\CHEM32\1\METHODS\Z4.M	
Last changed	7/6/2018 9:23:05 PM by Zach Taylor	
-	(modified after loading)	
Method Info	Alditol lab.	



Sorted By		:	Sigr	nal	
Multiplier		:	1.00	000	
Dilution		:	1.00		
Use Multiplier	δ.	Dilution	Factor	with	ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.652	bv s	0.0154	3.18015e5	3.02924e5	92.89015
2	1.023	VB S	0.0166	4747.54102	4386.12842	1.38673
3	1.223	BV X	0.0156	1.37686	1.47161	0.00040
4	1.267	VV X	0.0154	1.08220	1.16763	0.00032
5	1.324	VB X	0.0300	10.96119	4.91751	0.00320
6	1.586		0.0210	13.03289	9.85785	0.00381
7	1.675		0.0240	91.12949	60.35260	0.02662
8	1.915		0.0317	1.94737e4	7761.54150	5.68814
	2.242		0.0284	2.19584	1.12141	0.00064
9	2.242	מם	0.0204	2.10001		

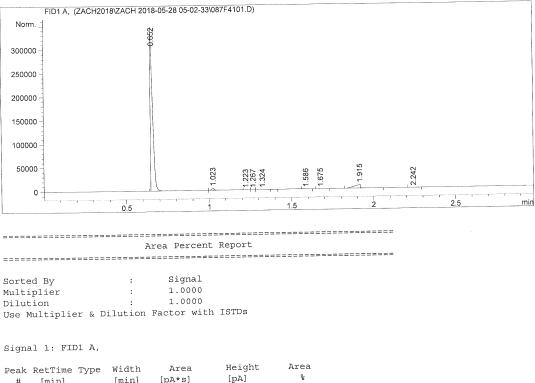
Totals :

3.42356e5 3.15151e5

Instrument 1 7/6/2018 10:25:03 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\087F4101.D Sample Name: 2

==:		: == ;		
Ac	q. Operator	:	Zach Taylor	Seq. Line : 41
Ac	q. Instrument	:	Instrument 1	Location : Vial 87
			28-May-18, 08:13:11	Inj: 1
	J · · · ·		-	Inj Volume : 1 µl
Ac	g. Method	:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-28 05-02-33\Z4.M
La	st changed		5/28/2018 4:50:57 AM k	
An	alysis Method	:	C:\CHEM32\1\METHODS\Z4	L.M
	st changed	:	7/6/2018 9:23:05 PM by	/ Zach Taylor
			(modified after loading	ng)
Me	thod Info	:	Alditol lab.	



Реак к	etrime	ΤΛŀ)e	WIGCH	ALCU	11019110	
#	[min]			[min]	[pA*s]	[pA]	8
1-							
1	0.652	вv	s	0.0154	3.18015e5	3.02924e5	92.89015
2	1.023			0.0166	4747.54102	4386.12842	1.38673
3	1.223			0.0156	1.37686	1.47161	0.00040
4	1.267			0.0154	1.08220	1.16763	0.00032
5	1.324			0.0300	10.96119	4.91751	0.00320
	1.586		A	0.0210	13.03289	9.85785	0.00381
6				0.0210	91.12949	60.35260	0.02662
7	1.675			••••	-	7761.54150	5.68814
8	1.915	BB		0.0317	1.94737e4		
9	2.242	BB		0.0284	2.19584	1.12141	0.00064
Totals	:				3.42356e5	3.15151e5	

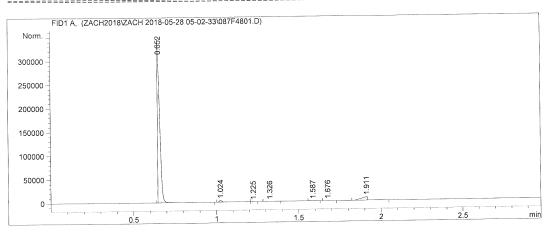
Instrument 1 7/6/2018 10:25:03 PM Zach Taylor

Page 1 of 2

2-Octanone: Sequence #1 – Run #8

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\087F4801.D Sample Name: 2

Acq. Operator Acq. Instrument	:	Instrument 1	Seq. Line : 48 Location : Vial 87
Injection Date		28-May-18, 08:46:40	Inj : 1 Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\	ZACH 2018-05-28 05-02-33\Z4.M
Last changed		5/28/2018 4:50:57 AM by Za	ch Taylor
Analysis Method		C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Zac (modified after loading)	h Taylor
Method Info	:	Alditol lab.	



Area Percent Report

Sorted By	:	Signal	
Multiplier	: 1.0000		
Dilution	:	1.0000	
Use Multiplier	& Dilution	Factor with ISTDs	

Instrument 1 7/6/2018 10:25:08 PM Zach Taylor

Signal 1: FID1 A,

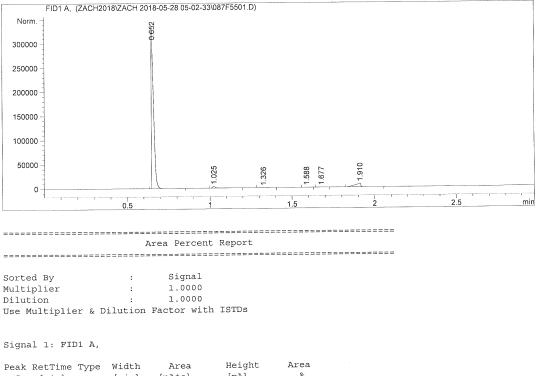
Peak	RetTime	Type	Width	Area	Height	Area
#	[min]		[min]	[pA*s]	[pA]	몽
1	0.652	BB S	0.0161	3.19648e5	3.08897e5	93.50013
2	1.024	BB S	0.0171	4048.85229	3609.23022	1.18433
3	1.225	BB	0.0149	1.12657	1.20256	0.00033
4	1.326		0.0304	8.41670	3.83266	0.00246
5	1.587		0.0228	11.94444	8.51303	0.00349
6	1.676		0.0257	84.67469	53.45954	0.02477
7	1.911		0.0353	1.80660e4	7098.55273	5.28449
	1.911					

Totals :

3.41869e5 3.19671e5

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\087F5501.D Sample Name: 2

	. = = :		
Acq. Operator	: 2	Zach Taylor	Seq. Line : 55
Acq. Instrument	: 3	Instrument 1	Location : Vial 87
Injection Date	: 3	28-May-18, 09:20:13	Inj : l
-			Inj Volume : 1 µl
Acq. Method	: (C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-28 05-02-33\Z4.M
Last changed	: /	5/28/2018 4:50:57 AM b	/ Zach Taylor
Analysis Method	: (C:\CHEM32\1\METHODS\Z4	. M
Last changed	; '	7/6/2018 9:23:05 PM by	Zach Taylor
		(modified after loading	3)
Method Info	: 2	Alditol lab.	

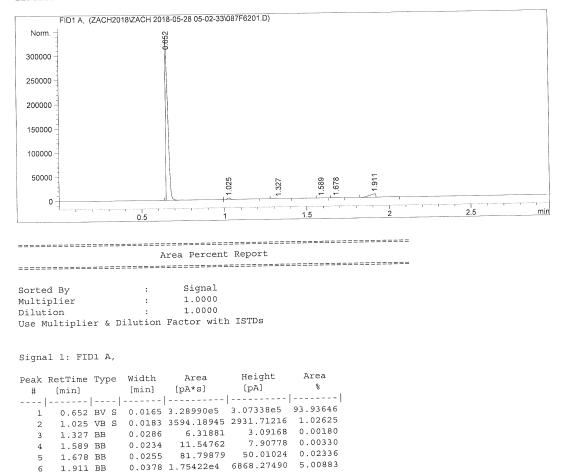


реак ке	ecrime	Type	winden	Area	nergne	112.000
# [[min]		[min]	[pA*s]	[pA]	8
1	0.652	BB S	0.0161	3.14169e5	3.03489e5	93.61553
2	1.025	BB S	0.0183	3705.27124	3202.11694	1.10409
3	1.326	VB	0.0321	9.24149	3.83437	0.00275
4	1.588	BB	0.0229	11.96441	8.43697	0.00357
5	1.677	BB	0.0260	82.45153	51.11640	0.02457
6	1.910	BB	0.0332	1.76170e4	7046.03320	5.24949
Totals	:			3.35595e5	3.13800e5	

Instrument 1 7/6/2018 10:25:11 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\087F6201.D Sample Name: 2

pic Name. 2							
Acq. Operator	Zach Taylor Seq. Line : 62						
Acq. Instrument	Instrument 1 Location : Vial 87						
Injection Date	28-May-18, 09:53:38 Inj : 1						
,	Inj Volume : 1 µl						
Acq. Method	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z4.	.М					
Last changed	5/28/2018 4:50:57 AM by Zach Taylor						
Analysis Method	C:\CHEM32\1\METHODS\Z4.M						
Last changed	7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)						
Method Info	Alditol lab.						

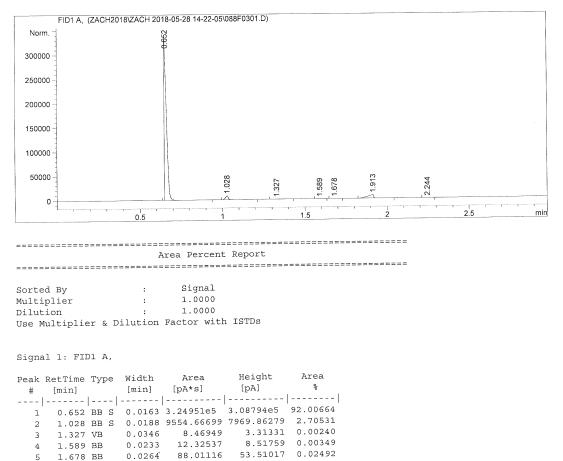


Totals : 3.50226e5 3.17199e5

Instrument 1 7/6/2018 10:25:15 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\088F0301.D Sample Name: 2

pre Name. 2								
Acq. Operator	:	Zach Taylor	Seq. Line : 3					
Acq. Instrument	:	Instrument 1	Location : Vial 88					
Injection Date	:	28-May-18, 14:32:53	Inj: 1					
-		-	Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\	ZACH 2018-05-28 14-22-05\Z4.M					
Last changed	:	5/28/2018 4:50:57 AM by Za	ach Taylor					
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M						
Last changed	:	7/6/2018 9:23:05 PM by Zac	ch Taylor					
		(modified after loading)						
Method Info	:	Alditol lab.						



1.04972 0.00059

0.0287 3.53182e5 3.24080e5 Totals :

0.0339 1.85655e4 7249.91504 5.25665

2.07901

Instrument 1 7/6/2018 10:26:10 PM Zach Taylor

1.913 BB

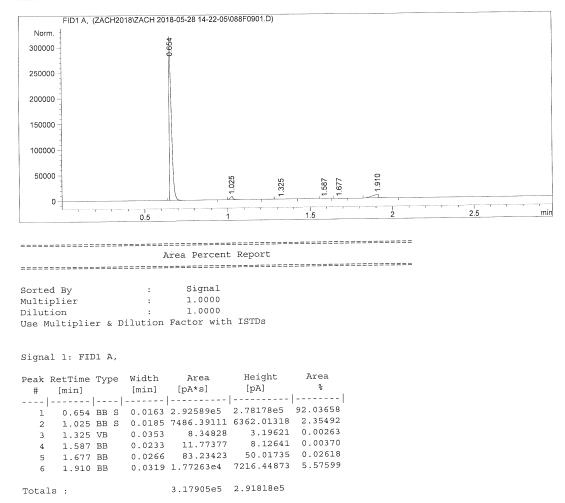
2.244 BB

6

7

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\088F0901.D Sample Name: 2

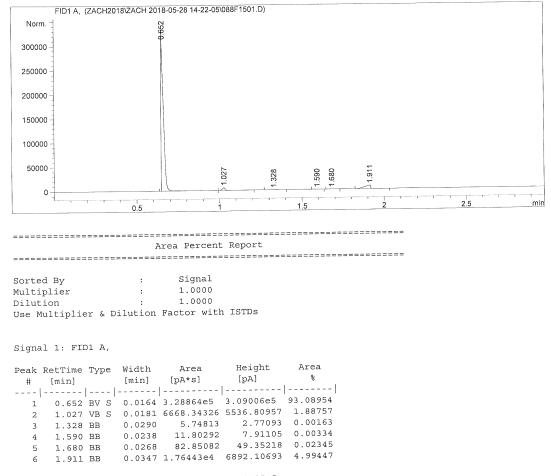
Acq. Operator : Zach Taylor 9 Seq. Line : Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 28-May-18, 15:05:58 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z4.M Acq. Method Last changed : 5/28/2018 4:50:57 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 10:26:22 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\088F1501.D Sample Name: 2

=				
:	Zach Taylor	Seq. Line : 15		
:	Instrument 1	Location : Vial 88		
:	28-May-18, 15:39:03	Inj: 1		
		Inj Volume : 1 µl		
:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-28 14-22-05\Z4.M		
Last changed : 5/28/2018 4:50:57 AM by Zach Taylor				
:	C:\CHEM32\1\METHODS\Z4	. M		
:	7/6/2018 9:23:05 PM by	Zach Taylor		
	(modified after loadin	g)		
:	Alditol lab.			
	: : : : :			

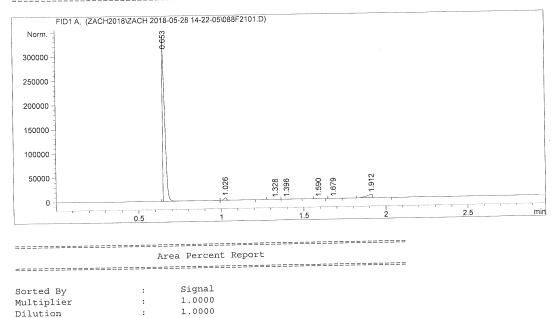


Totals : 3.53277e5 3.21495e5

Instrument 1 7/6/2018 10:26:33 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\088F2101.D Sample Name: 2

pre Name: 2					
Acq. Operator	: Zach Taylor Seq. Line : 21				
Acq. Instrument	: Instrument 1 Location : Vial 88				
Injection Date	: 28-May-18, 16:12:07 Inj : 1				
2	Inj Volume : 1 µl				
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z4	.М			
Last changed	: 5/28/2018 4:50:57 AM by Zach Taylor				
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M				
Last changed	: 7/6/2018 9:23:05 PM by Zach Taylor				
5	(modified after loading)				
Method Info	: Alditol lab.				



Signal 1: FID1 A,

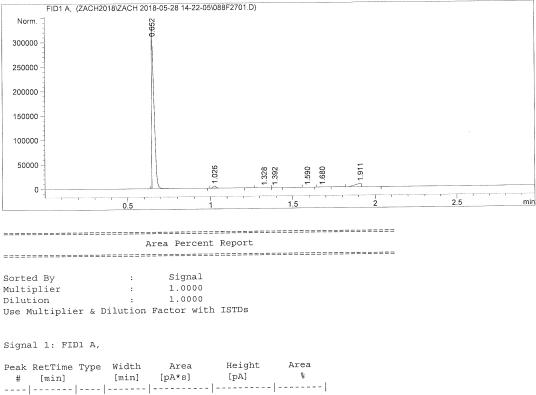
Peak Re # [tTime min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.653	BV S	0.0162	3.24681e5	3.09829e5	93.07349
2	1.026		0.0180	6146.57080	5111.92920	1.76198
3	1.328		0.0271	5.97558	3.02429	0.00171
4	1.396		0.0324	86.50874	40.09502	0.02480
	1.590	BB	0.0229	11.78283	8.33365	0.00338
5				83.54507	50,99400	0.02395
6	1.679	BB	0.0263			
7	1.912	BB	0.0348	1.78283e4	7118.95654	5.11069
Totals	:			3.48844e5	3.22162e5	

Instrument 1 7/6/2018 10:26:37 PM Zach Taylor

Use Multiplier & Dilution Factor with ISTDs

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\088F2701.D Sample Name: 2

Acq. Operator	:	Zach Taylor	Seq. Line : 27	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	28-May-18, 16:45:11	Inj : 1	
5			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-28 14-22-05\Z4.M	
Last changed	:	5/28/2018 4:50:57 AM by Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M	
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor		
		(modified after loading)	
Method Info	:	Alditol lab.		

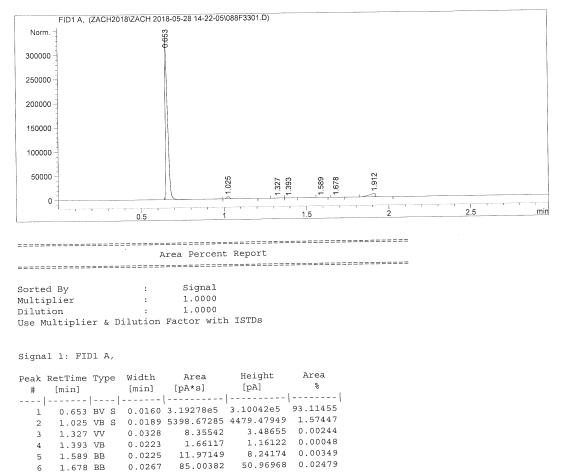


#	[min]		[min]	[pA*s]	[pA]	90
1	0.652	BB S	0.0173	3.28639e5	3.06993e5	93.41366
2	1.026	BB S	0.0204	5528.91016	4350.24072	1.57156
3	1.328	вv	0.0354	7.49640	2.93743	0.00213
4	1.392	VB	0.0225	1.47549	1.01895	0.00042
5	1.590	BB	0.0239	11.63143	7.74630	0.00331
6	1.680	BB	0.0272	82.53821	48.11826	0.02346
7	1.911		0.0331	1,75394e4	6850.14014	4.98546
Totals	:			3.51811e5	3.18253e5	

Instrument 1 7/6/2018 10:26:42 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\088F3301.D Sample Name: 2

Acq. Operator	:	Zach Taylor	Seq. Line : 33	
Acq. Instrument			Location : Vial 88	
		28-May-18, 17:18:13	Inj : 1	
j = = = = = = = = = = = = = =		-	Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-28 14-22-05\Z4.M	
Last changed		5/28/2018 4:50:57 AM		
Analysis Method	:	C:\CHEM32\1\METHODS\2	54.M	
Last changed	:	7/6/2018 9:23:05 PM k	y Zach Taylor	
2		(modified after loadi	ng)	
Method Info	:	Alditol lab.		



Totals : 3.42888e5 3.21843e5

0.0323 1.81037e4 7257.18115 5.27977

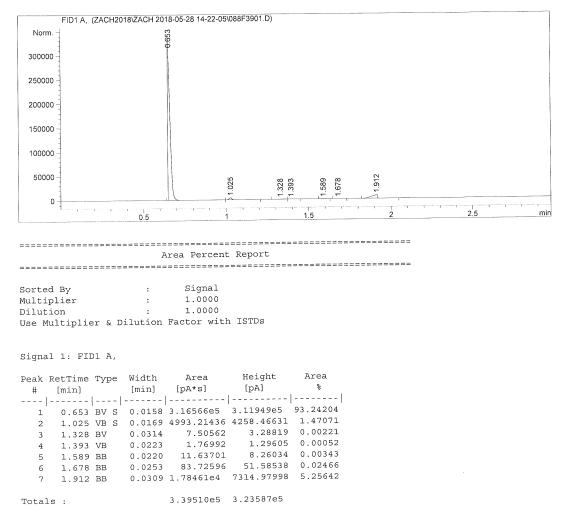
Instrument 1 7/6/2018 10:26:46 PM Zach Taylor

1.912 BB

7

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\088F3901.D Sample Name: 2

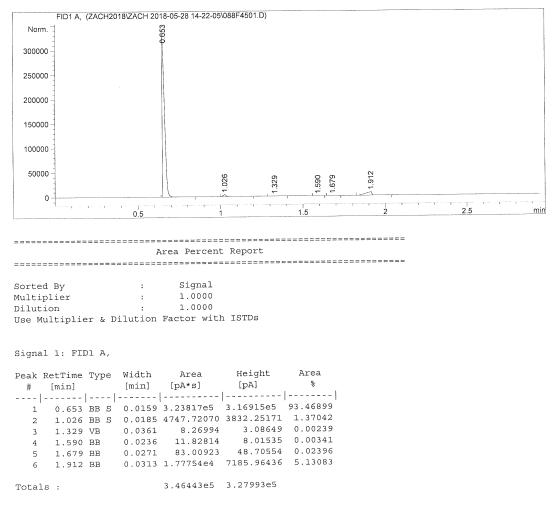
Acq. Operator	:	Zach Taylor	Seq. Line : 39	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	28-May-18, 17:51:20	Inj : 1	
2			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-28 14-22-05\Z4.M	
Last changed	:	5/28/2018 4:50:57 AM	by Zach Taylor	
Analysis Method		C:\CHEM32\1\METHODS\Z		
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor	
		(modified after loadi	ng)	
Method Info	:	Alditol lab.		



Instrument 1 7/6/2018 10:26:54 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\088F4501.D Sample Name: 2

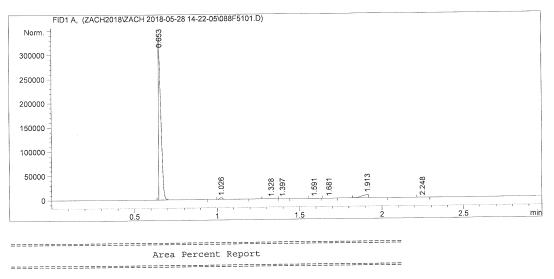
Acq. Operator : Zach Taylor Seq. Line : 45 Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 28-May-18, 18:24:27 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z4.M Acq. Method Last changed : 5/28/2018 4:50:57 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 10:26:59 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\088F5101.D Sample Name: 2

up ne nome n									
Acq. Operator	:	Zach Taylor	Seq. Line : 51						
Acq. Instrument	:	Instrument 1	Location : Vial 88						
Injection Date	:	28-May-18, 18:57:36	Inj: 1						
5		-	Inj Volume : 1 µl						
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\	ZACH 2018-05-28 14-22-05\Z4.M						
Last changed		5/28/2018 4:50:57 AM by Za	ch Taylor						
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M							
Last changed	:	7/6/2018 9:23:05 PM by Zac	eh Taylor						
		(modified after loading)							
Method Info	:	Alditol lab.							



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

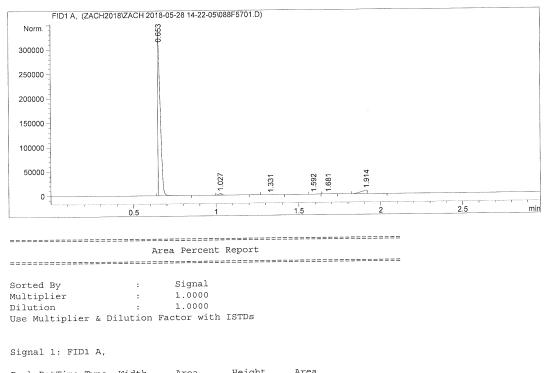
Signal 1: FID1 A,

Peak Re # [tTime [min]	Тур	be	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.653	вв	s	0.0165	3.33572e5	3.10347e5	93.46773
2	1.026	BB	s	0.0196	4726.97754	3715.15430	1.32451
3	1.328	вv		0.0337	7.44069	3.09432	0.00208
4	1.397	VB		0.0260	1.93934	1.15383	0.00054
5	1.591	BB		0.0241	12.16255	8.02719	0.00341
6	1.681	BB		0.0274	86.61893	49.91524	0.02427
7	1.913	BB		0.0349	1.84753e4	7163.18555	5.17681
8	2.248	BB		0.0270	2.27447	1.15181	0.00064
Totals	:				3.56885e5	3.21289e5	

Instrument 1 7/6/2018 10:27:01 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\088F5701.D Sample Name: 2

	===		
Acq. Operator	:	Zach Taylor	Seq. Line : 57
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	28-May-18, 19:30:40	Inj : 1
-			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-28 14-22-05\Z4.M
Last changed	:	5/28/2018 4:50:57 AM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor
		(modified after loadi	ng)
Method Info	:	Alditol lab.	

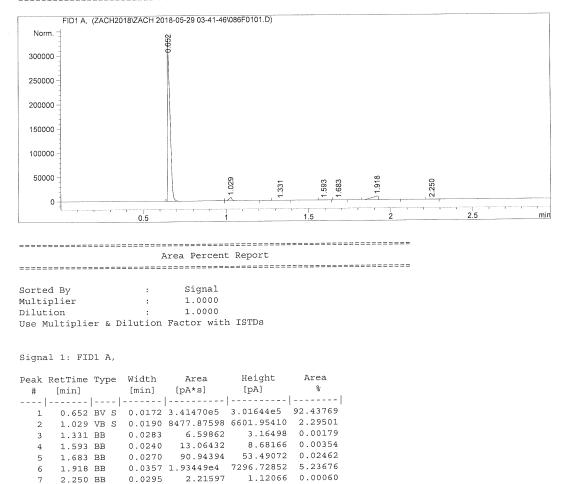


Peak R	etTime	Type	Width	Area	Height	Area
#	[min]		[min]	[pA*s]	[pA]	\$
1	0.653	BBS	0.0166	3.36171e5	3.10418e5	93.56707
2	1.027	BB S	0.0186	4575.45703	3649.25952	1.27349
3	1.331	BB	0.0318	7.18837	2.93277	0.00200
4	1.592	BB	0.0247	13.02511	8.28173	0.00363
5	1.681	BB	0.0284	86,98044	49.68460	0.02421
6	1.914	BB	0.0346	1.84298e4	7037.52539	5.12960
Totals	:			3.59284e5	3.21166e5	

Instrument 1 7/6/2018 10:27:10 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\086F0101.D Sample Name: 2

===============	= =		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 86
Injection Date	:	29-May-18, 03:43:34	Inj : l
-			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-29 03-41-46\Z4.M
Last changed	:	5/28/2018 4:50:57 AM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z-	4 . M
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor
		(modified after loadi:	ng)
Method Info	:	Alditol lab.	

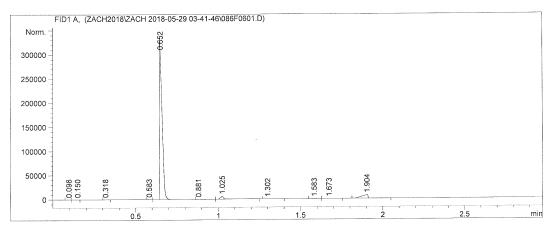


Totals : 3.69405e5 3.15609e5

Instrument 1 7/6/2018 10:27:39 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\086F0601.D Sample Name: 2

==================	= == :		
Acq. Operator	:	Zach Taylor	Seq. Line : 6
Acq. Instrument	:	Instrument 1	Location : Vial 86
Injection Date	:	29-May-18, 04:15:41	Inj : l
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-29 03-41-46\Z4.M
Last changed	:	5/28/2018 4:50:57 AM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z-	4.M
Last changed	;	7/6/2018 9:23:05 PM by	y Zach Taylor
		(modified after loadi:	ng)
Method Info	:	Alditol lab.	



Area Percent Report

Sorted By : Signal

Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

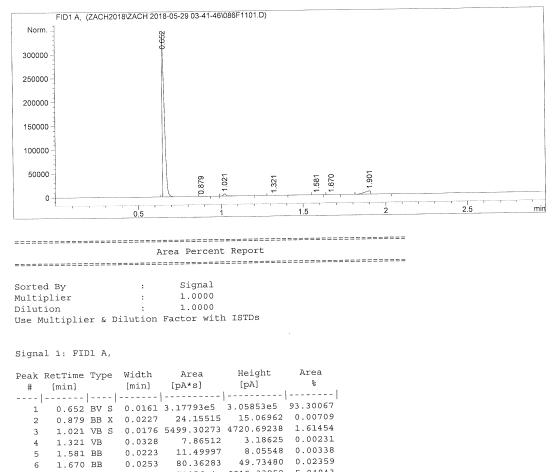
Signal 1: FID1 A,

Peak	RetTime	Type	Width	Area	Height	Area
#	[min]		[min]	[pA*s]	[pA]	용
1	0.098	BV	0.0156	1.55933	1.68809	0.00042
2	0.150	vv	0.0267	3.20529	1.58800	0.00087
3	0.318	BB	0.0156	2.46716	2.17518	0.00067
4	0.583	вv	0.0162	1.41766	1.19505	0.00039
5	0.652	vv s	0.0171	3.41817e5	3.05539e5	92.95842
6	0.881	ву х	0.0303	35.16563	15.60035	0.00956
7	1.025	VB S	0.0184	6992.54102	5676.31982	1.90165
8	1.302	BB	0.0321	6.35873	2.43084	0.00173
9	1.583	BV	0.0250	13.47549	8.44951	0.00366
10	1.673	VB	0.0276	90.08624	51.49199	0.02450
11	1.904	BB	0.0358	1.87463e4	7432.41113	5.09813

Instrument 1 7/6/2018 10:27:53 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\086F1101.D Sample Name: 2

Acq. Operator	:	Zach Taylor	Seq. Line : 11					
Acq. Instrument			Location : Vial 86					
		29-May-18, 04:47:56	Inj: l					
			Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-29 03-41-46\Z4.M					
Last changed		5/28/2018 4:50:57 AM b						
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M					
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor					
		(modified after loadin	g)					
Method Info	:	Alditol lab.						



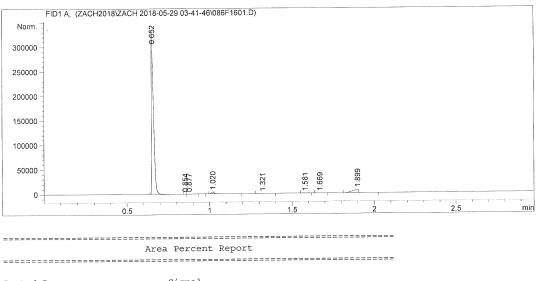
7 1.901 BB 0.0330 1.71956e4 6915.33252 5.04843

Totals : 3.40612e5 3.17565e5

Instrument 1 7/6/2018 10:27:56 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\086F1601.D Sample Name: 2

pro hamo, p								
Seq. Line : 16								
Location : Vial 86								
Inj: 1								
Inj Volume : 1 µl								
H 2018-05-29 03-41-46\Z4.M								
Taylor								
aylor								



Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

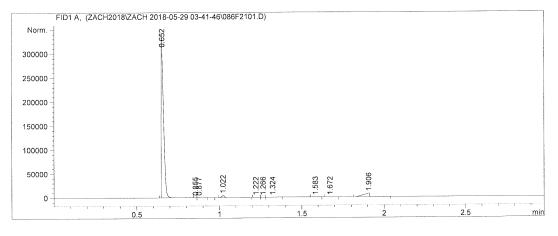
Signal 1: FID1 A,

Peak Re # [tTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.652	вв	s	0.0153	2.93397e5	3.01938e5	93.50722
2	0.854	вv	х	0.0136	1.88457	2.31385	0.00060
3	0.877	VB	х	0.0223	19.41114	12.39644	0.00619
4	1.020	BB	s	0.0169	4397.24951	3977.62891	1.40143
5	1.321	VB		0.0306	7.16415	3.13912	0.00228
6	1.581	BB		0.0214	10.62436	7.85561	0.00339
7	1.669	BB		0.0243	74.35200	48.54428	0.02370
8	1.899	BB		0.0316	1.58617e4	6908.77881	5.05520
Totals	:				3.13770e5	3.12899e5	

Instrument 1 7/6/2018 10:28:00 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\086F2101.D Sample Name: 2 Acq. Operator : Zach Taylor Seq. Line : 21 Acq. Instrument : Instrument 1 Location : Vial 86 Injection Date : 29-May-18, 05:52:21 Inj : 1

		Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z4.M
Last changed	:	5/28/2018 4:50:57 AM by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor
		(modified after loading)
Method Info	:	Alditol lab.



Area Percent Report

Sort	ed By		:	Signal	
Mult	iplier		:	1.0000	
Dilu	ution		:	1.0000	
Use	Multiplier	δ.	Dilution	Factor with	ISTDs

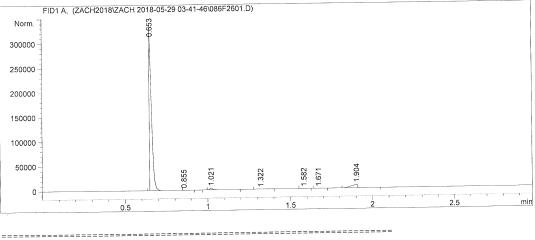
Signal 1: FID1 A,

Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area ۶
1	0.652	BB S	0.0161	3.20627e5	3.09240e5	93.12260
2	0.855	вv х	0.0145	2,98961	3.44735	0.00087
3	0.877	VВ X	0.0219	15.21541	9.47833	0.00442
4	1.022	BB S	0.0160	4662.62207	4243.22217	1.35421
5	1.222	BB	0.0146	1.07513	1.18066	0.00031
6	1.266	вv	0.0153	1.01124	1.04412	0.00029
7	1.324	VB	0.0294	8.12803	3.73063	0.00236
8	1.583	BB	0.0217	12.61847	9.15787	0.00366
9	1.672	BB	0.0248	88.58444	56.25491	0.02573
10	1.906	BB	0.0354	1.88871e4	7204.90283	5.48554

Instrument 1 7/6/2018 10:28:02 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\086F2601.D Sample Name: 2

nple Name: 2			
	= =		
Acq. Operator	:	Zach Taylor	Seq. Line : 26
Acq. Instrument	:	Instrument 1	Location : Vial 86
		29-May-18, 06:24:35	Inj : 1
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZA	ACH 2018-05-29 03-41-46\Z4.M
Last changed		5/28/2018 4:50:57 AM by Zach	n Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Zach	Taylor
5		(modified after loading)	
Method Info	:	Alditol lab.	



Area Percent Report

-

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

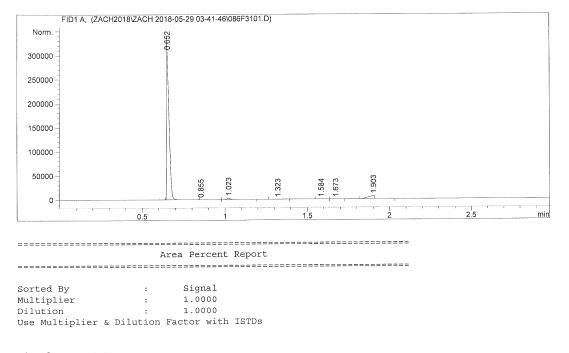
Signal 1: FID1 A,

Peak Re	tTime	Typ)e	Width	Area	Height	Area
	[min]			[min]	[pA*s]	[pA]	8
1	0.653	BB	s	0.0154	3.03020e5	3.08976e5	93.25546
2	0.855	BB	х	0.0484	12.47872	4.29847	0.00384
3	1.021		s	0.0174	4148.63818	3605.48364	1.27676
4	1.322			0.0334	8.27583	3.37167	0.00255
5	1.582			0.0233	11.82081	8.17495	0.00364
6	1.671			0.0265	82.49314	49.88239	0.02539
7	1.904	BB		0.0334	1.76517e4	6995.73438	5.43237
Totals	:				3.24935e5	3.19643e5	

Instrument 1 7/6/2018 10:28:06 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\086F3101.D Sample Name: 2

Acq. Operator	:	Zach Taylor	Seq. Line : 31				
Acq. Instrument	:	Instrument 1	Location : Vial 86				
Injection Date	:	29-May-18, 06:56:56	Inj: 1				
		•	Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-29 03-41-46\Z4.M				
Last changed	:	5/28/2018 4:50:57 AM	by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M				
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor				
-		(modified after loadi	ng)				
Method Info	:	Alditol lab.	-				



Signal 1: FID1 A,

Peak	RetTime	Туре	е	Width	Area	Height	Area
#	[min]			[min]	[pA*s]	[pA]	00
			- -				
1	0.652	BV S	S	0.0155	3.23326e5	3.07883e5	93.96874
2	0.855	BV 3	Х	0.0472	14.95523	5.28339	0.00435
3	1.023	VB :	S	0.0199	3753.02930	2904.66235	1.09075
4	1.323	BB		0.0315	5.94442	2.59684	0.00173
5	1.584	BB		0.0260	11.55947	7.15941	0.00336
6	1.673	BB		0.0288	79.50146	44.55054	0.02311
7	1.903	BB		0.0338	1.68873e4	6805.07471	4.90797

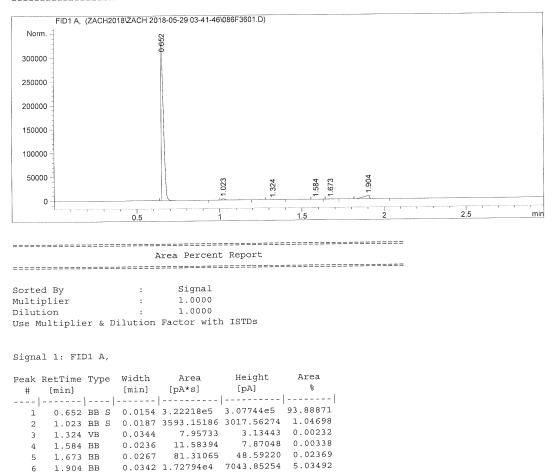
Totals :

3.44078e5 3.17653e5

Instrument 1 7/6/2018 10:28:19 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\086F3601.D Sample Name: 2

Acq. Operator	:	Zach Taylor	Seq. Line : 36					
Acq. Instrument	:	Instrument 1	Location : Vial 86					
Injection Date	:	29-May-18, 07:29:14	Inj : 1					
-			Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-29 03-41-46\Z4.M					
Last changed		5/28/2018 4:50:57 AM k						
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M					
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor					
		(modified after loadir	ıg)					
Method Info	:	Alditol lab.						



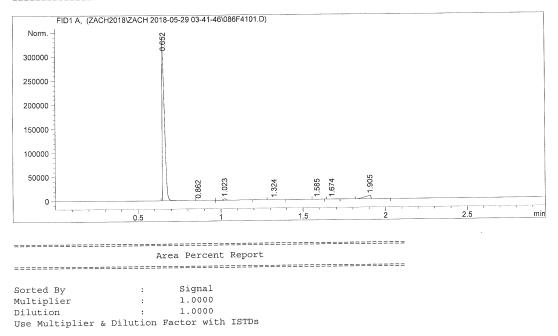
3.43191e5 3.17865e5

Instrument 1 7/6/2018 10:28:22 PM Zach Taylor

Totals :

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\086F4101.D Sample Name: 2

Acq. Operator	:	Zach Taylor	Seq. Line : 41				
Acq. Instrument	:	Instrument 1	Location : Vial 86				
Injection Date	:	29-May-18, 08:01:33	Inj: 1				
-			Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-29 03-41-46\Z4.M				
Last changed	:	5/28/2018 4:50:57 AM b	by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	Ł.M				
Last changed	:	7/6/2018 9:23:05 PM by	/ Zach Taylor				
_		(modified after loading	ng)				
Method Info	:	Alditol lab.					



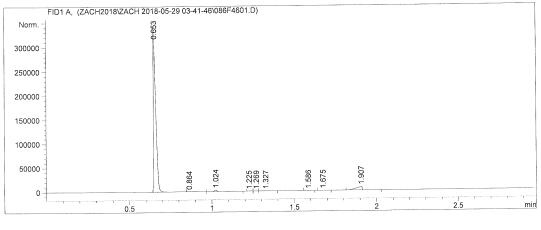
Signal 1: FID1 A,

Peak Re # [etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.652	'bv s'	0.0153	3.18962e5	3.07151e5	93.85833
2	0.862	BV X	0.0334	4.84809	2.41820	0.00143
3	1.023	VB S	0.0177	3442.66895	2937.92725	1.01305
4	1.324	VB	0.0345	8.50747	3.34083	0.00250
5	1.585	BB	0.0233	11.59098	8.00183	0.00341
6	1.674	BB	0.0265	81.36652	49.31236	0.02394
7	1.905	BB	0.0330	1.73225e4	6965.43652	5.09734
Totals	:			3.39834e5	3.17118e5	

Instrument 1 7/6/2018 10:28:26 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\086F4601.D Sample Name: 2

Acq. Operator	Zach Taylor	Seq. Line : 46
Acq. Instrument :	Instrument 1	Location : Vial 86
Injection Date :	29-May-18, 08:33:44	Inj: 1
5	-	Inj Volume : 1 µl
Acq. Method	C:\Chem32\1\DATA\ZACH2018	3\ZACH 2018-05-29 03-41-46\Z4.M
	5/28/2018 4:50:57 AM by 2	Mach Taylor
	C:\CHEM32\1\METHODS\Z4.M	
Last changed	: 7/6/2018 9:23:05 PM by Za	ach Taylor
-	(modified after loading)	
Method Info	Alditol lab.	



Area Percent Report

Sorted By : Signal

Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.653	'bv s'	0.0162	3.26360e5	3.12147e5	93.86227
2	0.864	BV X	0.0263	4.96502	2.59577	0.00143
3	1.024	VB S	0.0167	3361.82593	2901.01318	0.96687
4	1.225	вv	0.0170	1.19072	1.13769	0.00034
5	1.269	vv	0.0163	1.07967	1.02170	0.00031
6	1.327	VB	0.0330	8.71913	3.50452	0.00251
7	1.586	BB	0.0225	12.22060	8.46120	0.00351
8	1.675	BB	0.0253	84.07519	51.92862	0.02418
9	1.907	BB	0.0324	1.78669e4	7132.35107	5.13857

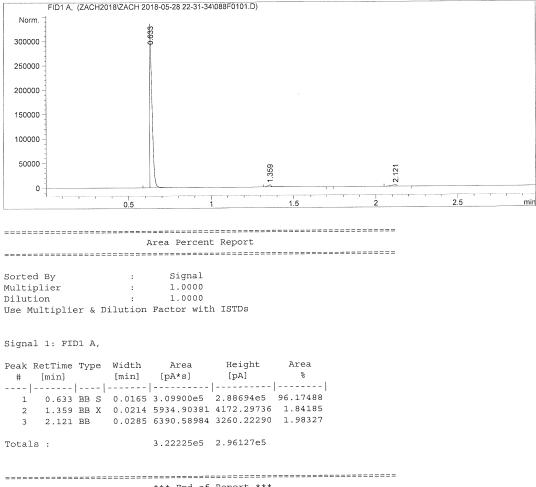
Totals :

3.47701e5 3.22249e5

Instrument 1 7/6/2018 10:28:29 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 22-31-34\088F0101.D Sample Name: Cyclohexanone

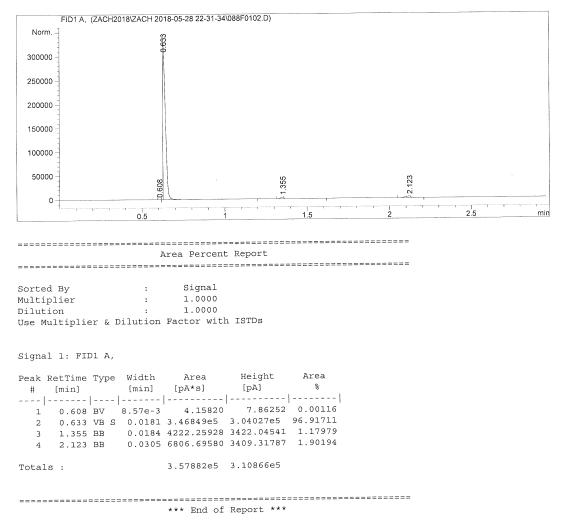
	===		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	28-May-18, 22:32:34	Inj : 1
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-28 22-31-34\Z2.M
Last changed	:	5/28/2018 4:48:16 AM 1	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	4.M
Last changed	:	7/6/2018 9:23:05 PM by	y Zach Taylor
		(modified after loadi	ng)
Method Info	:	Alditol lab.	



*** End of Report ***

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 22-31-34\088F0102.D Sample Name: Cyclohexanone

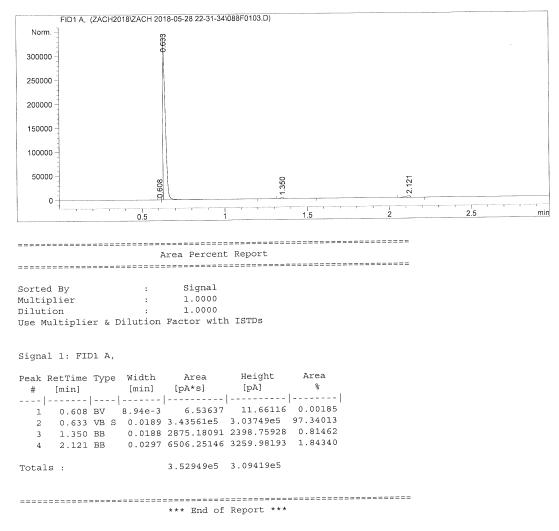
	= == :				
Acq. Operator	:	Zach Taylor	Seq. Line	:	1
Acq. Instrument	:	Instrument 1	Location	:	Vial 88
Injection Date	:	28-May-18, 22:36:33	Inj	:	2
			Inj Volume		
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-28	3 3	22-31-34\Z2.M
Last changed	:	5/28/2018 4:48:16 AM b	oy Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	Ł.M		
Last changed	:	7/6/2018 9:23:05 PM by	/ Zach Taylor		
		(modified after loading	ıg)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 10:29:15 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 22-31-34\088F0103.D Sample Name: Cyclohexanone

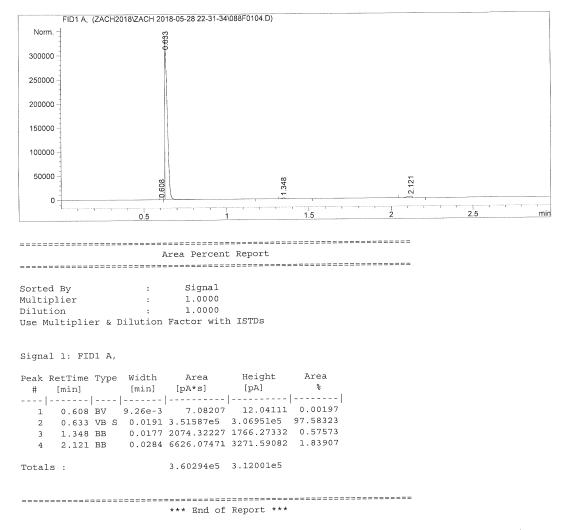
apro namo, ojorom			
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	28-May-18, 22:40:35	Inj: 3
5		-	Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH203	L8\ZACH 2018-05-28 22-31-34\Z2.M
Last changed	:	5/28/2018 4:48:16 AM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	1
Last changed	:	7/6/2018 9:23:05 PM by 2	
		(modified after loading)	
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:29:17 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 22-31-34\088F0104.D Sample Name: Cyclohexanone

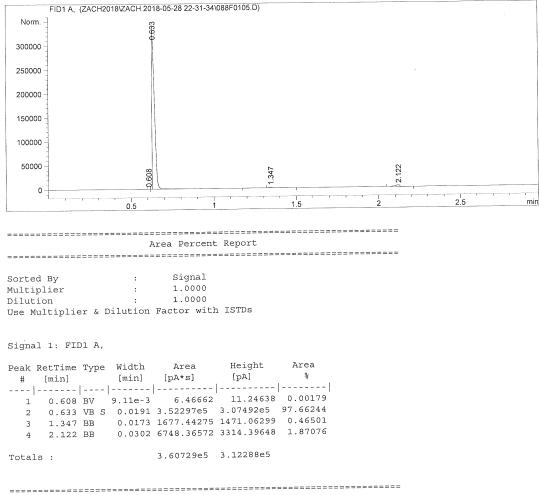
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	28-May-18, 22:44:34	Inj : 4
5			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-05-28 22-31-34\Z2.M
Last changed	:	5/28/2018 4:48:16 AM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\2	34.M
Last changed	:	7/6/2018 9:23:05 PM k	y Zach Taylor
		(modified after load	Lng)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:29:18 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 22-31-34\088F0105.D Sample Name: Cyclohexanone

Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	28-May-18, 22:48:35	Inj : 5	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-28 22-31-34\Z2.M	
Last changed	:	5/28/2018 4:48:16 AM	by Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M	
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor	
_		(modified after loadi	ng)	
Method Info	:	Alditol lab.		

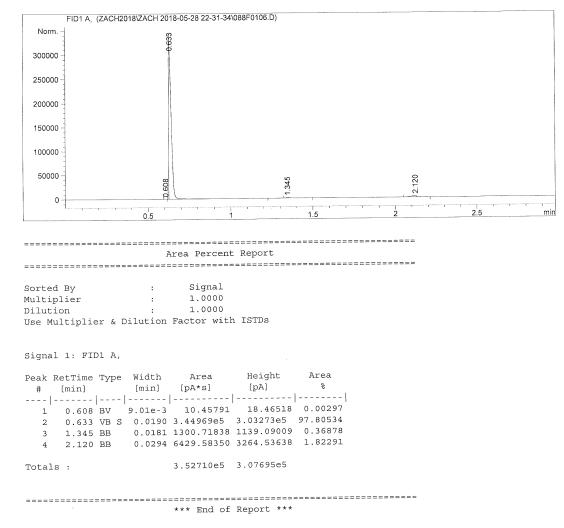


*** End of Report ***

Instrument 1 7/6/2018 10:29:20 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 22-31-34\088F0106.D Sample Name: Cyclohexanone

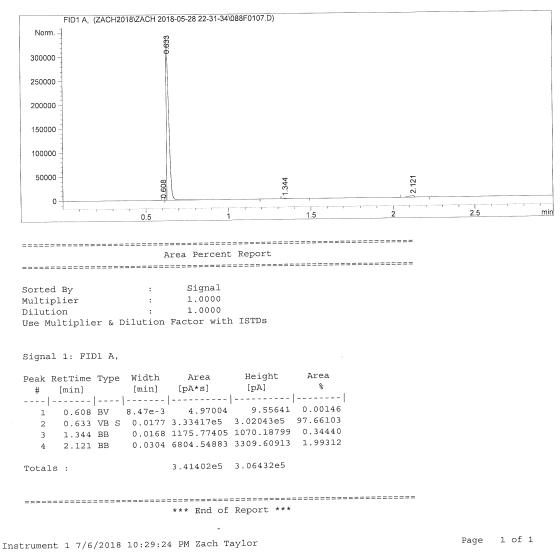
Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 28-May-18, 22:52:33 Inj: 6 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 22-31-34\Z2.M Acq. Method : 5/28/2018 4:48:16 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 10:29:22 PM Zach Taylor

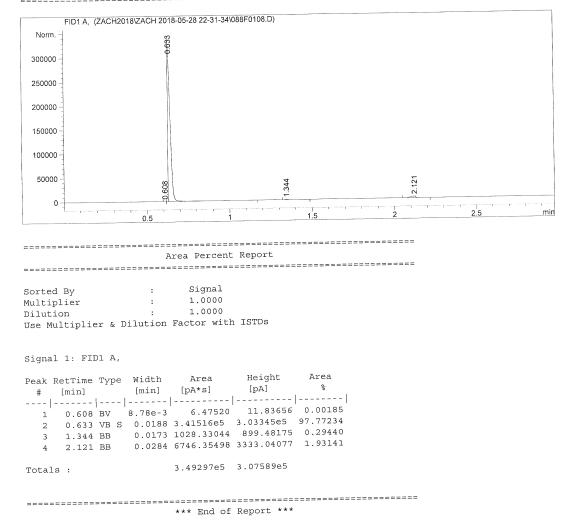
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 22-31-34\088F0107.D Sample Name: Cyclohexanone

	= =		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	28-May-18, 22:56:33	Inj : 7
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-28 22-31-34\Z2.M
Last changed	:	5/28/2018 4:48:16 AM b	y Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M
Last changed	:	7/6/2018 9:23:05 PM by	7 Zach Taylor
		(modified after loadin	ig)
Method Info	:	Alditol lab.	



Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 22-31-34\088F0108.D Sample Name: Cyclohexanone

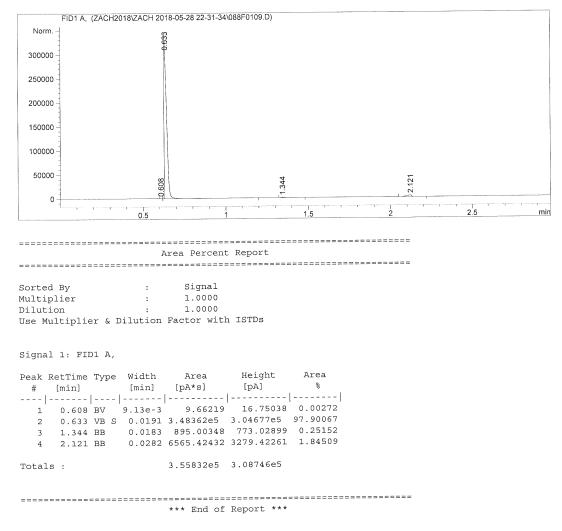
ipre Maille: Cycronexanone			
	: = :		=======================================
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	28-May-18, 23:00:31	Inj: 8
211,0002011 2002			Inj Volume : 1 µl
Acq. Method		C:\Chem32\1\DATA\ZACH2018\ZAC	
Last changed		5/28/2018 4:48:16 AM by Zach	Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Zach T	Caylor
		(modified after loading)	
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:29:25 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 22-31-34\088F0109.D Sample Name: Cyclohexanone

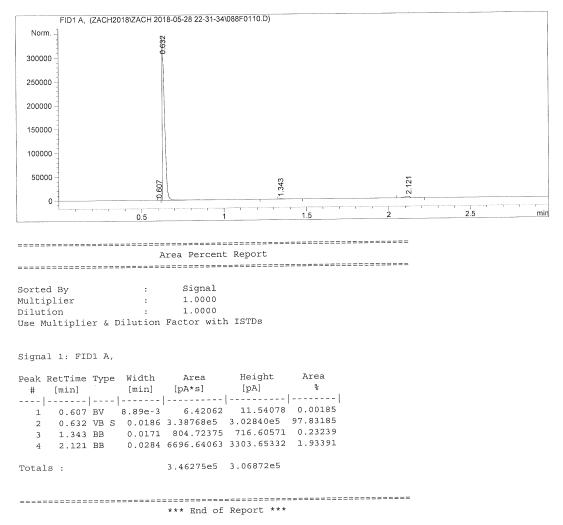
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Acq. Operator : Zach Taylor
                                       Seq. Line :
                                                   1
                                        Location : Vial 88
Acq. Instrument : Instrument 1
                                             Inj: 9
Injection Date : 28-May-18, 23:04:31
                                       Inj Volume : 1 µl
            : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 22-31-34\Z2.M
Acq. Method
Last changed
           : 5/28/2018 4:48:16 AM by Zach Taylor
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
           : 7/6/2018 9:23:05 PM by Zach Taylor
Last changed
               (modified after loading)
Method Info
             : Alditol lab.
```



Instrument 1 7/6/2018 10:29:27 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 22-31-34\088F0110.D Sample Name: Cyclohexanone

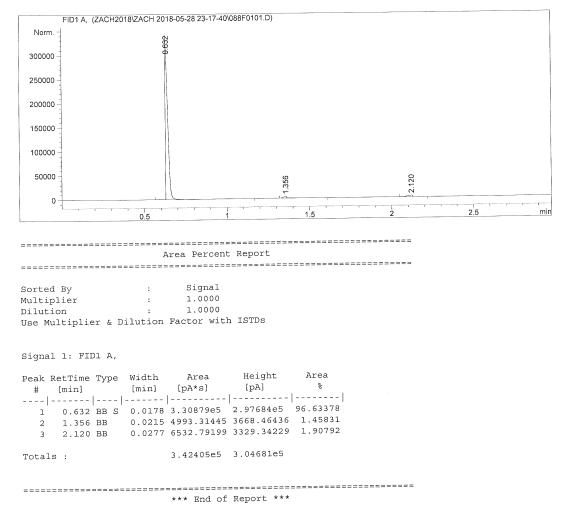
		:
Acq. Operator		
Acq. Instrument	Instrument 1 Location : Vial 88	
Injection Date	28-May-18, 23:08:30 Inj : 10	
5	Inj Volume : 1 µl	
Acq. Method	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 22-31-34\	,Ζ2.Μ
Last changed	5/28/2018 4:48:16 AM by Zach Taylor	
Analysis Method	C:\CHEM32\1\METHODS\Z4.M	
Last changed	7/6/2018 9:23:05 PM by Zach Taylor	
	(modified after loading)	
Method Info	Alditol lab.	



Instrument 1 7/6/2018 10:29:29 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 23-17-40\088F0101.D Sample Name: Cyclohexanone

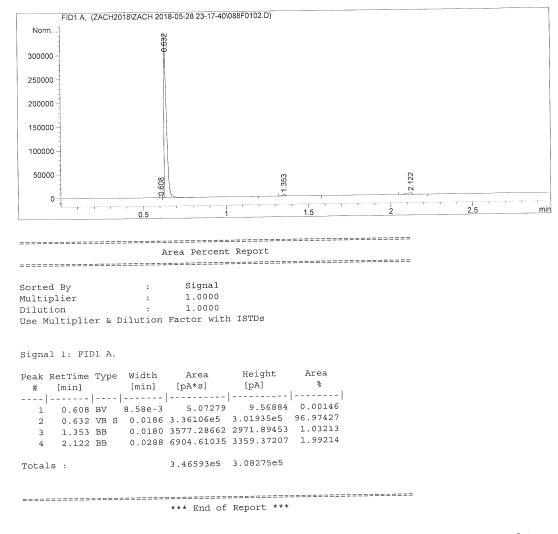
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	28-May-18, 23:18:39	Inj: 1	
5		-	Inj Volume : 1 µl	
Acg. Method	:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-28 23-17-40\Z2.M	
Last changed	:	5/28/2018 4:48:16 AM k	y Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M	
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor	
5		(modified after loading	1g)	
Method Info	:	Alditol lab.		



Instrument 1 7/6/2018 10:29:43 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 23-17-40\088F0102.D Sample Name: Cyclohexanone

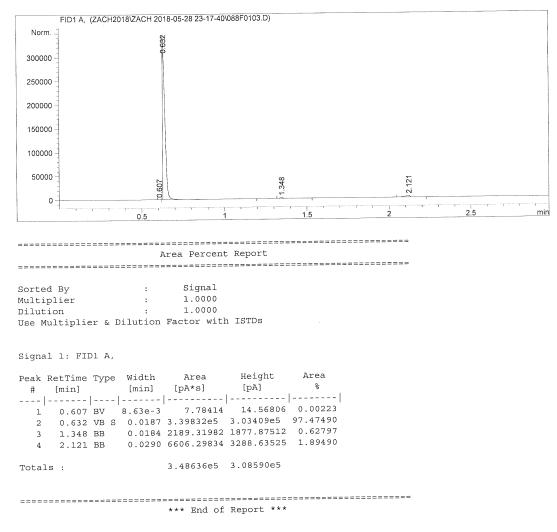
pre Name: cycronexanone			
Acq. Operator	: Zach Taylor	Seq. Line : 1	
Acq. Instrument	: Instrument 1	Location : Vial 88	
Injection Date	: 28-May-18, 23:22:39	Inj: 2	
5		Inj Volume : l µl	
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZAC	CH 2018-05-28 23-17-40\Z2.M	
Last changed	: 5/28/2018 4:48:16 AM by Zach	Taylor	
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M		
Last changed	: 7/6/2018 9:23:05 PM by Zach 5	Taylor	
	(modified after loading)		
Method Info	: Alditol lab.		



Instrument 1 7/6/2018 10:29:44 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 23-17-40\088F0103.D Sample Name: Cyclohexanone

ipre Maile. Cycrone	-~ (anone	
	= == :		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	28-May-18, 23:26:37	Inj: 3
5			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZA	ACH 2018-05-28 23-17-40\Z2.M
Last changed		5/28/2018 4:48:16 AM by Zach	n Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Zach	Taylor
		(modified after loading)	
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:29:46 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 23-17-40\088F0104.D
Sample Name: Cyclohexanone
    Acq. Operator : Zach Taylor
                                             Seq. Line : 1
   Acq. Instrument : Instrument 1
                                             Location : Vial 88
   Injection Date : 28-May-18, 23:30:37
                                                  Inj: 4
                                            Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 23-17-40\Z2.M
   Acq. Method
   Last changed
               : 5/28/2018 4:48:16 AM by Zach Taylor
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                   (modified after loading)
   Method Info
                 : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-28 23-17-40\088F0104.D)
     Norm.
                         1634
     300000
     250000
     200000
     150000
     100000
     50000
                                           .343
                                                               ŝ
        0
            0.5
                                                                        2.5
                                                                                   min
                                               1.5
   _____
                        Area Percent Report
   Sorted By
                      :
                            Signal
   Multiplier
                            1.0000
                      :
   Dilution
                           1.0000
                      :
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
   Peak RetTime Type Width
                                     Height
                                               Area
                            Area
                                               양
                   [min]
                         [pA*s]
                                     [pA]
     # [min]
   0.608 BV 8.68e-3 10.37694 19.27180 0.00380
     1
         0.634 VB S 0.0156 2.66528e5 2.85177e5 97.66513
1.343 BB 0.0167 1261.63855 1162.49243 0.46231
      2

        1.343
        BB
        0.0167
        1261.63855
        1102.43235
        1

        2.114
        BB
        0.0291
        5099.83838
        2721.86450
        1.86876

      3
      4
                          2.72900e5 2.89080e5
   Totals :
   *** End of Report ***
```

Instrument 1 7/6/2018 10:29:48 PM Zach Taylor

Instrument 1 7/6/2018 10:29:50 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 23-17-40\088F0105.D
Sample Name: Cyclohexanone
   _____
   Acq. Operator : Zach Taylor
                                           Seq. Line :
                                                       1
   Acq. Instrument : Instrument 1
                                            Location : Vial 88
                                                Inj: 5
   Injection Date : 28-May-18, 23:34:36
                                           Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 23-17-40\Z2.M
   Acq. Method
               : 5/28/2018 4:48:16 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                  (modified after loading)
   Method Info
                : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-28 23-17-40\088F0105.D)
     Norm.
                        33
     300000
     250000
     200000
     150000
     100000
      50000
                                                             122
                                          .346
                                                             à
        0
            2.5
                     0.5
   _____
                       Area Percent Report
    Signal
    Sorted By
   Multiplier
                            1.0000
                      :
                          1.0000
                      :
   Dilution
   Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
    Peak RetTime Type Width
                           Area
                                    Height
                                             Area
                         [pA*s]
                                    [pA]
                                              %
     # [min]
                   [min]
    0.608 BV 9.01e-3 8.58159 15.14236 0.00243
      1
      2 0.633 VB S 0.0189 3.45520e5 3.05469e5 97.73401

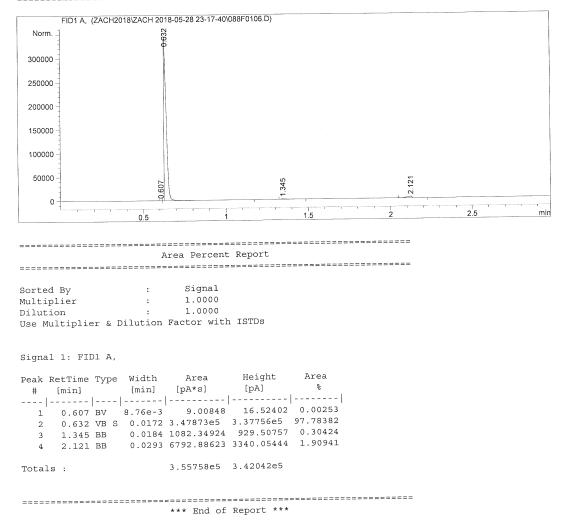
        1.346
        BB
        0.0173
        1288.90552
        1128.04492
        0.36458

        2.122
        BB
        0.0280
        6713.46973
        3270.10229
        1.89898

      3
      4
                          3.53531e5 3.09882e5
    Totals :
    *** End of Report ***
                                                                    Page 1 of 1
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 23-17-40\088F0106.D Sample Name: Cyclohexanone

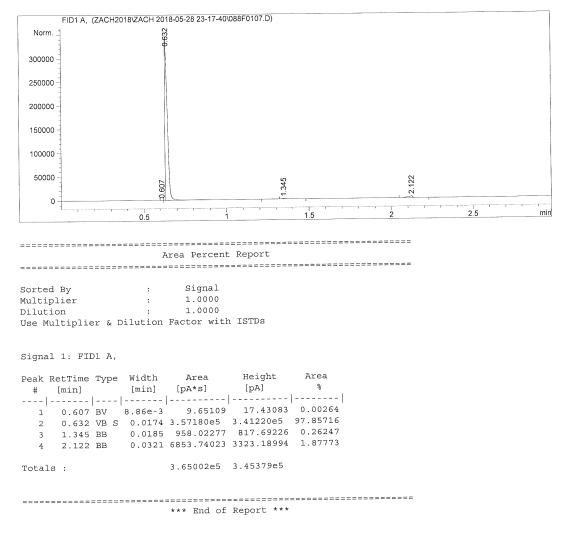
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	28-May-18, 23:38:36	Inj : 6
2		-	Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-28 23-17-40\Z2.M
Last changed	:	5/28/2018 4:48:16 AM by	Zach Taylor
Analysis Method	:	$C: \ CHEM32 \ 1 \ ETHODS \ Z4$.	M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
5		(modified after loading)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:29:52 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 23-17-40\088F0107.D Sample Name: Cyclohexanone

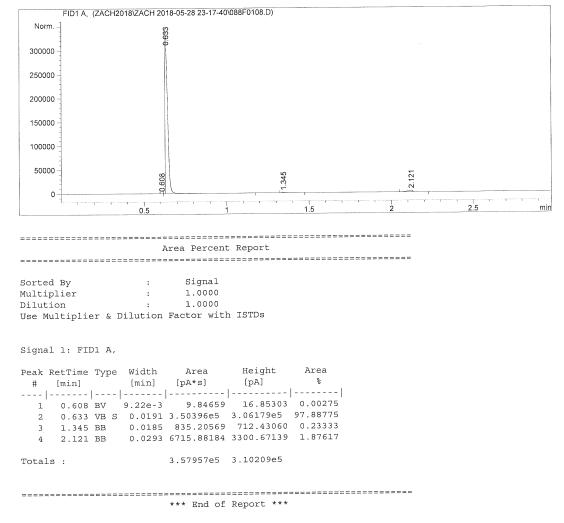
Acq. Operator	: Zach Taylor	Seq. Line : 1		
Acq. Instrument	: Instrument 1	Location : Vial 88		
Injection Date	: 28-May-18, 23:42:35	Inj : 7		
5		Inj Volume : 1 µl		
Acq. Method	: C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-28 23-17-40\Z2.M		
	: 5/28/2018 4:48:16 AM by			
Analysis Method	: C:\CHEM32\1\METHODS\Z4	. М		
	: 7/6/2018 9:23:05 PM by			
	(modified after loadin	3)		
Method Info	: Alditol lab.			



Instrument 1 7/6/2018 10:29:54 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 23-17-40\088F0108.D Sample Name: Cyclohexanone Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 28-May-18, 23:46:35 Inj: 8 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 23-17-40\Z2.M Acq. Method : 5/28/2018 4:48:16 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab.





Instrument 1 7/6/2018 10:29:57 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 23-17-40\088F0109.D Sample Name: Cyclohexanone Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 28-May-18, 23:50:33 Inj: 9 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 23-17-40\Z2.M Acq. Method Last changed : 5/28/2018 4:48:16 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-28 23-17-40\088F0109.D) Norm. 9699 300000 250000 200000 150000 100000 50000 120 343 0 25 0.5 Area Percent Report Signal Sorted By : Multiplier 1.0000 : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area [min] [pA*s] [pA] 8 # [min] 0.608 BV 8.67e-3 7.25482 13.49608 0.00226 1
 1
 0.000 BV
 0.076-3
 7.25402
 13.49000
 0.00220

 2
 0.633 VB S
 0.0176
 3.14095e5
 2.97793e5
 97.75845

 3
 1.343 BB
 0.0166
 716.41571
 663.58698
 0.22298

 4
 2.120 BB
 0.0310
 6478.35352
 3284.24805
 2.01631
 3.21297e5 3.01754e5 Totals : *** End of Report ***

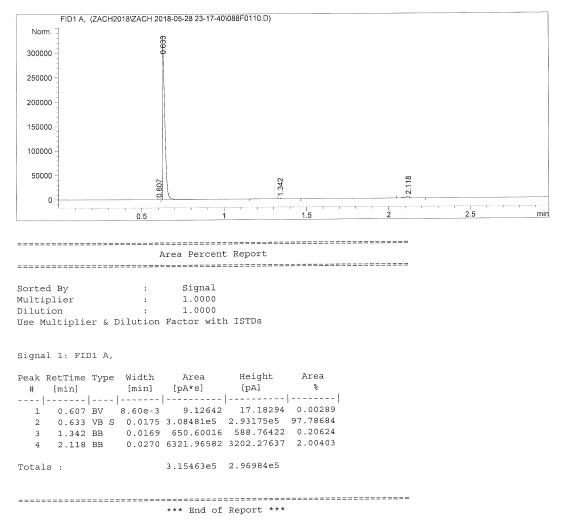
Instrument 1 7/6/2018 10:29:59 PM Zach Taylor

Page 1 of 1

min

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 23-17-40\088F0110.D Sample Name: Cyclohexanone

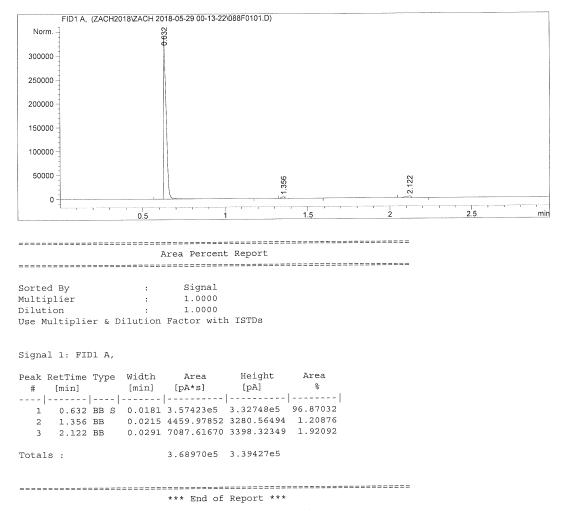
Acq. Operator	:	Zach Taylor	Seq. Line : 1	
Acq. Instrument	:	Instrument 1	Location : Vial 88	
Injection Date	:	28-May-18, 23:54:33	Inj : 10	
			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-28 23-17-40\Z2.N	1
Last changed	:	5/28/2018 4:48:16 AM b	y Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M	
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor	
		(modified after loadin	g)	
Method Info	:	Alditol lab.		



Instrument 1 7/6/2018 10:30:01 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\088F0101.D Sample Name: Cyclohexanone

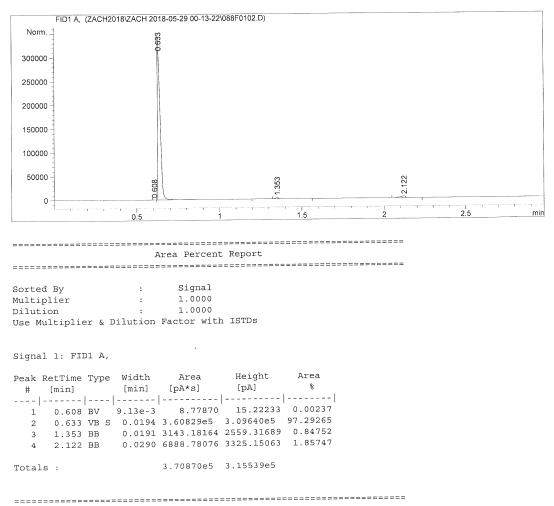
	= == 3		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	29-May-18, 00:14:23	Inj : 1
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-29 00-13-22\Z2.M
Last changed	:	5/28/2018 4:48:16 AM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor
		(modified after loadi	ng)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:31:17 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\088F0102.D Sample Name: Cyclohexanone

Acq. Operator	Cach Taylor Seq. Line : 1				
Acq. Instrument	Instrument 1 Location : Vial 8	8			
Injection Date	29-May-18, 00:18:22 Inj: 2				
2	Inj Volume : 1 µl				
Acq. Method	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-2	2\Z2.M			
Last changed	5/28/2018 4:48:16 AM by Zach Taylor				
Analysis Method	C:\CHEM32\1\METHODS\Z4.M				
Last changed	7/6/2018 9:23:05 PM by Zach Taylor				
	(modified after loading)				
Method Info	Alditol lab.				



*** End of Report ***

Instrument 1 7/6/2018 10:31:19 PM Zach Taylor

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Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\088F0103.D
Sample Name: Cyclohexanone
   Acq. Operator : Zach Taylor
                                            Seq. Line :
                                                       1
                                             Location : Vial 88
   Acq. Instrument : Instrument 1
                                                 Inj: 3
   Injection Date : 29-May-18, 00:22:22
                                           Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\Z2.M
   Acq. Method
                : 5/28/2018 4:48:16 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                  (modified after loading)
   Method Info
                 : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-29 00-13-22\088F0103.D)
      Norm. -
                         632
     300000
     250000
     200000 -
     150000
     100000
      50000
                                                              120
                                           .349
                                                              à
        0
                                                                          -I.....I.
                                                                       2.5
                                                                                  mir
                                              1.5
                      0.5
    _____
                        Area Percent Report
    Sorted By
                            Signal
                       :
                            1.0000
    Multiplier
                      :
                           1.0000
    Dilution
                      :
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                     Height
                                              Area
    Peak RetTime Type Width
                            Area
                                               8
                           [pA*s]
                                     [pA]
         [min]
                    [min]
     #
                                     -----
       0.607 BV 9.26e-3 11.59650 19.72923 0.00318
      1
         0.632 VB S 0.0195 3.56136e5 3.05128e5 97.62569
      2

        1.349
        BB
        0.0190
        2055.83887
        1686.39368
        0.56356

        2.120
        BB
        0.0298
        6593.98486
        3281.68042
        1.80757

      З
       4
                          3.64798e5 3.10116e5
    Totals :
    *** End of Report ***
```

Instrument 1 7/6/2018 10:31:21 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\088F0104.D Sample Name: Cyclohexanone Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 00:26:20 Inj: 4 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\Z2.M Acq. Method Last changed : 5/28/2018 4:48:16 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-29 00-13-22\088F0104.D) Norm. -0.632 300000 250000 200000 150000 100000 50000 347 121 607 2 0 2.5 0.5 1.5 Area Percent Report Sorted By Signal : Multiplier 1.0000 : Dilution 1.0000 : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area 양 [min] [pA*s] [pA] # [min] 1 0.607 BV 8.97e-3 8.49565 15.07536 0.00238 0.632 VB S 0.0191 3.48710e5 3.04245e5 97.64036 2
 1.347
 BB
 0.0174
 1575.55176
 1371.52905
 0.44116

 2.121
 BB
 0.0302
 6843.08740
 3353.49585
 1.91610
 3 4 3.57137e5 3.08985e5 Totals : *** End of Report ***

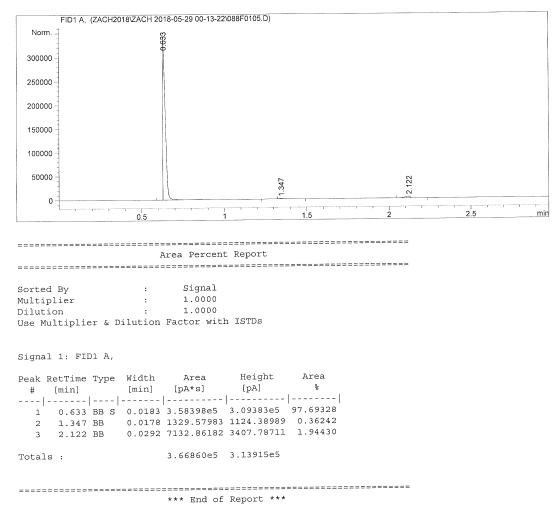
Instrument 1 7/6/2018 10:31:22 PM Zach Taylor

Page 1 of 1

min

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\088F0105.D Sample Name: Cyclohexanone

= = :		
:	Zach Taylor	Seq. Line : 1
:	Instrument 1	Location : Vial 88
:	29-May-18, 00:30:19	Inj: 5
		Inj Volume : 1 µl
:	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-05-29 00-13-22\Z2.M
:	7/6/2018 9:23:05 PM k	y Zach Taylor
	(modified after loadi	.ng)
:	Alditol lab.	
	: : : :	: 5/28/2018 4:48:16 AM : C:\CHEM32\1\METHODS\2 : 7/6/2018 9:23:05 PM k



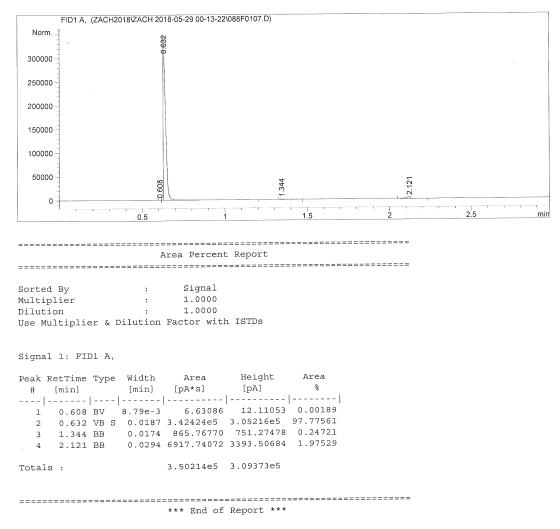
Instrument 1 7/6/2018 10:31:24 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\088F0106.D Sample Name: Cyclohexanone Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 00:34:17 Inj: 6 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\Z2.M Acq. Method Last changed : 5/28/2018 4:48:16 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-29 00-13-22\088F0106.D) Norm. 🗄 632 300000 250000 200000 150000 100000 -50000 22 346 0 2.5 min 0.5 Area Percent Report Sorted By : Signal Multiplier 1.0000 : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area [min] [pA*s] [pA] 8 # [min] 0.608 BV 8.98e-3 7.94864 14.08477 0.00216 1
 0.000 By
 0.0000 By
 <th 2 3 4 3.68173e5 3.14589e5 Totals : _____ *** End of Report ***

Instrument 1 7/6/2018 10:31:26 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\088F0107.D Sample Name: Cyclohexanone

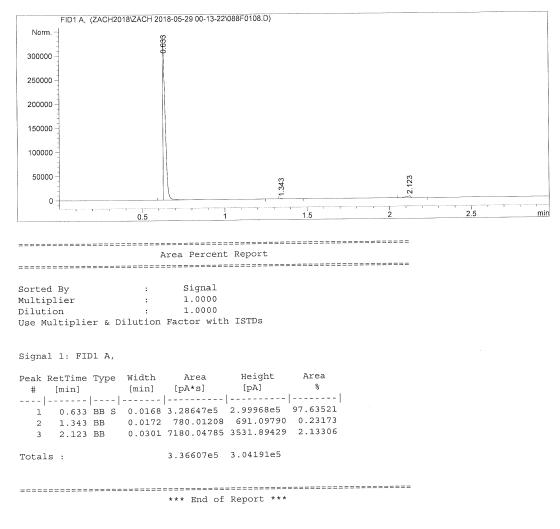
Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Inj : 7 Injection Date : 29-May-18, 00:38:16 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\Z2.M Acq. Method Last changed : 5/28/2018 4:48:16 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 10:31:27 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\088F0108.D Sample Name: Cyclohexanone

	= =		
Acq. Operator	:	Zach Taylor	Seq. Line : 1
Acq. Instrument	:	Instrument 1	Location : Vial 88
Injection Date	:	29-May-18, 00:42:14	Inj: 8
-			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-29 00-13-22\Z2.M
Last changed	:	5/28/2018 4:48:16 AM b	y Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	, M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
-		(modified after loadin	g)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:31:29 PM Zach Taylor

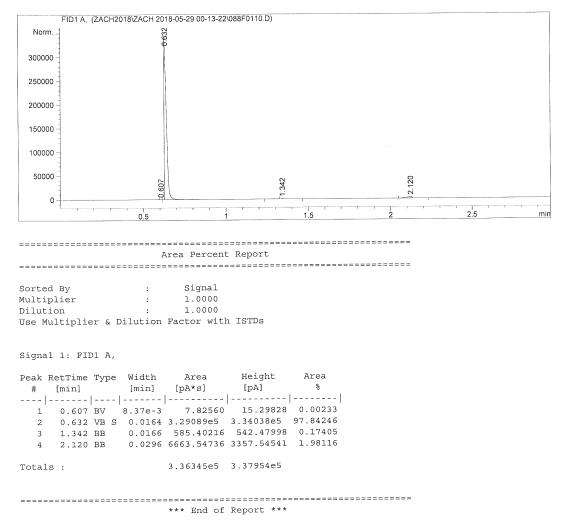
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\088F0109.D Sample Name: Cyclohexanone Acq. Operator : Zach Taylor Seq. Line : 1 Acq. Instrument : Instrument 1 Location : Vial 88 Inj: 9 Injection Date : 29-May-18, 00:46:13 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\Z2.M Acq. Method Last changed : 5/28/2018 4:48:16 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-29 00-13-22\088F0109.D) Norm. 659 300000 250000 200000 150000 100000 50000 122 .345 2 0 2.5 min 0.5 Area Percent Report Sorted By . Signal Multiplier 1.0000 : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Height Area Area % [pA] [pA*s] # [min] [min] 0.608 BV 9.31e-3 10.86165 18.35063 0.00298 1 0.632 VB S 0.0193 3.57185e5 3.08629e5 97.91983 2
 1.345
 BB
 0.0185
 685.35370
 584.55194
 0.18789

 2.122
 BB
 0.0289
 6891.66602
 3332.92310
 1.88931
 3 4 3.64772e5 3.12565e5 Totals : *** End of Report ***

Instrument 1 7/6/2018 10:31:31 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\088F0110.D Sample Name: Cyclohexanone

Acq. Operator	:	Zach Taylor	Seq. I	line	:	1		
Acq. Instrument	:	Instrument 1	Locat	cion	:	Vial 88		
Injection Date	:	29-May-18, 00:50:12		Inj	:	10		
			Inj Vol					
Acq. Method	:	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-0)5-29)	00-13-22\Z2.M		
Last changed	:	5/28/2018 4:48:16 AM	5/28/2018 4:48:16 AM by Zach Taylor					
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M					
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor					
		(modified after loadi	.ng)					
Method Info	:	Alditol lab.						



Instrument 1 7/6/2018 10:31:33 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\088F0111.D Sample Name: Cyclohexanone

. Acq. Operator : Zach Taylor Seq. Line : 1 Location : Vial 88 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 00:54:12 Inj : 11 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 00-13-22\Z2.M Acq. Method Last changed : 5/28/2018 4:48:16 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.

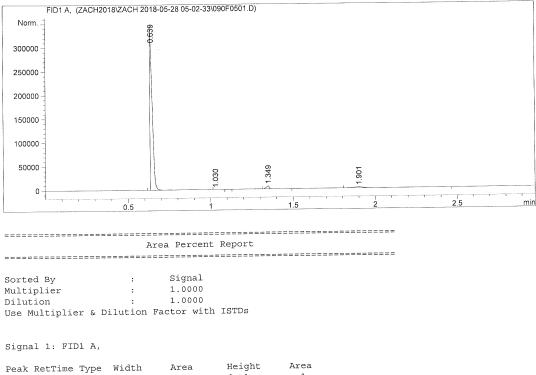
FID1 A, (ZACH2018\ZACH 2018-05-29 00-13-22\088F0111.D) Norm. 659 300000 250000 200000 150000 100000 50000 2 344 à 0 25 min 1.5 0.5 Area Percent Report . _____ Sorted By Signal : Multiplier 1.0000 : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area [pA*s] [pA] olo [min] # [min] -----0.607 BV 8.92e-3 11.27471 20.17328 0.00318 1 0.632 VB S 0.0190 3.47460e5 3.04887e5 97.91189 1.344 BB 0.0179 566.88568 476.99722 0.15974 2
 1.344
 BB
 0.0179
 566.88568
 4/6.99722

 2.121
 BB
 0.0309
 6831.91797
 3366.91064
 1.92519
 3 2.121 BB 4 3.54870e5 3.08751e5 Totals : *** End of Report ***

Instrument 1 7/6/2018 10:31:34 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\090F0501.D Sample Name: 5

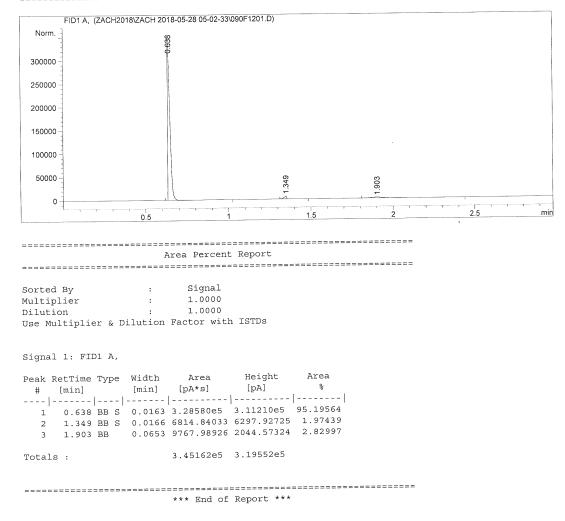
```
Acq. Operator : Zach Taylor
                                        Seq. Line : 5
                                         Location : Vial 90
Acq. Instrument : Instrument 1
                                             Inj: 1
Injection Date : 28-May-18, 05:21:04
                                       Inj Volume : 1 µl
            : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z3.M
Acq. Method
            : 5/28/2018 4:51:49 AM by Zach Taylor
Last changed
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
            : 7/6/2018 9:23:05 PM by Zach Taylor
Last changed
              (modified after loading)
Method Info
             : Alditol lab.
```

Instrument 1 7/6/2018 10:34:08 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\090F1201.D Sample Name: 5

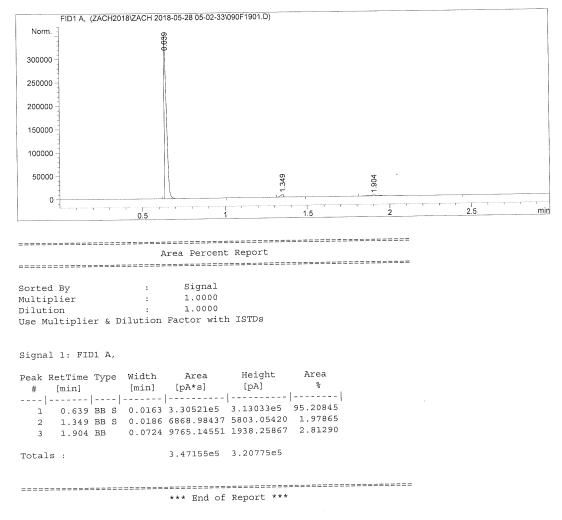
:	Zach Taylor	Seq. Line : 12			
:	Instrument 1	Location : Vial 90			
:	28-May-18, 05:54:33	Inj : l			
	-	Inj Volume : 1 µl			
:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-28 05-02-33\Z3.M			
:	5/28/2018 4:51:49 AM k	by Zach Taylor			
:	C:\CHEM32\1\METHODS\Z4	ł.M			
:	7/6/2018 9:23:05 PM by	/ Zach Taylor			
	(modified after loadin	ng)			
:	Alditol lab.				
	::	<pre>: Zach Taylor : Instrument 1 : 28-May-18, 05:54:33 : C:\Chem32\1\DATA\ZACH2 : 5/28/2018 4:51:49 AM h : C:\CHEM32\1\METHODS\Z4 : 7/6/2018 9:23:05 PM by (modified after loadin : Alditol lab.</pre>			



Instrument 1 7/6/2018 10:34:12 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\090F1901.D Sample Name: 5

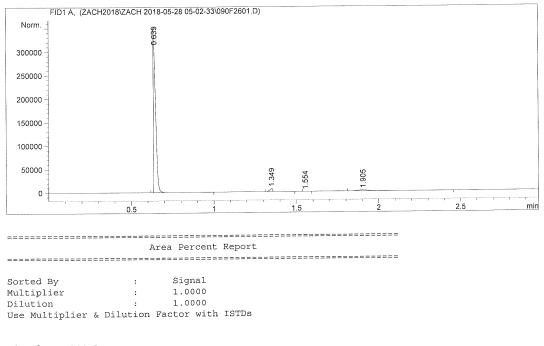
```
Acq. Operator : Zach Taylor
                                       Seq. Line : 19
                                        Location : Vial 90
Acq. Instrument : Instrument 1
                                            Inj: 1
Injection Date : 28-May-18, 06:28:02
                                       Inj Volume : 1 µl
             : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z3.M
Acq. Method
            : 5/28/2018 4:51:49 AM by Zach Taylor
Last changed
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
              (modified after loading)
            : Alditol lab.
Method Info
```



Instrument 1 7/6/2018 10:34:17 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\090F2601.D Sample Name: 5

Acq. Operator	:	Zach Taylor	Seq. Line : 26
Acq. Instrument	:	Instrument 1	Location : Vial 90
Injection Date	:	28-May-18, 07:01:31	Inj : 1
5		-	Inj Volume : l µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-28 05-02-33\Z3.M
Last changed	:	5/28/2018 4:51:49 AM by	Zach Taylor
Analysis Method		C:\CHEM32\1\METHODS\Z4.	
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
		(modified after loading	()
Method Info	:	Alditol lab.	



Signal 1: FID1 A,

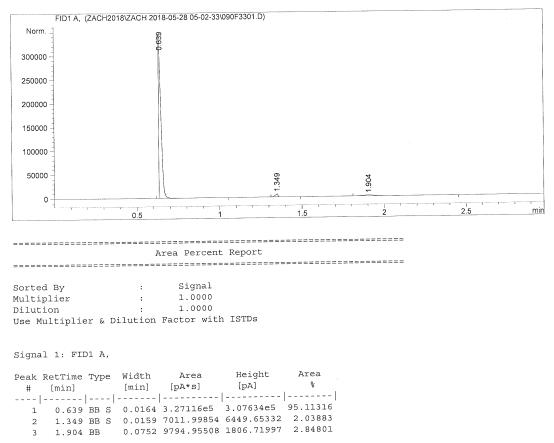
Peak RetTime 7 # [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area ۴	
1 0.639 H 2 1.349 H 3 1.554 H 4 1.905 H	BB S BB	0.0168 0.0175	3.26942e5 7192.19922 1.14457 1.00829e4	3.10149e5 6539.01367 1.05249 1921.20117	94.98103 2.08943 0.00033 2.92921	
Totals :			3.44218e5	3.18610e5		
=======================================						=================

*** End of Report ***

Instrument 1 7/6/2018 10:34:21 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\090F3301.D Sample Name: 5

upre Name: 5			
	= = :		
Acq. Operator	;	Zach Taylor	Seq. Line : 33
Acq. Instrument	:	Instrument 1	Location : Vial 90
Injection Date	:	28-May-18, 07:35:03	Inj: 1
5		-	Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-28 05-02-33\Z3.M
Last changed		5/28/2018 4:51:49 AM	
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M
Last changed		7/6/2018 9:23:05 PM b (modified after loadi	y Zach Taylor
Method Info	:	Alditol lab.	



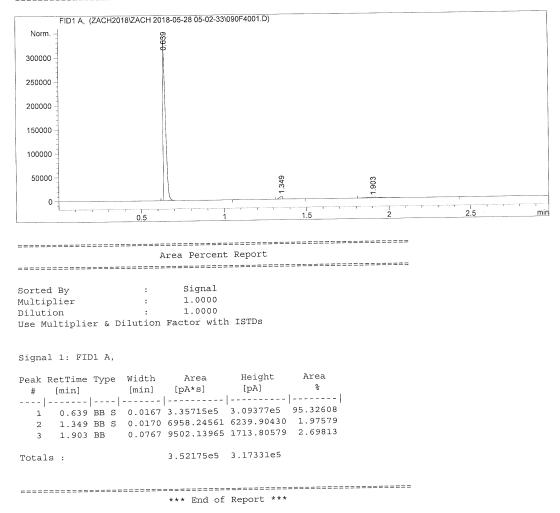
Totals : 3.43923e5 3.15891e5

*** End of Report ***

Instrument 1 7/6/2018 10:34:26 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\090F4001.D Sample Name: 5

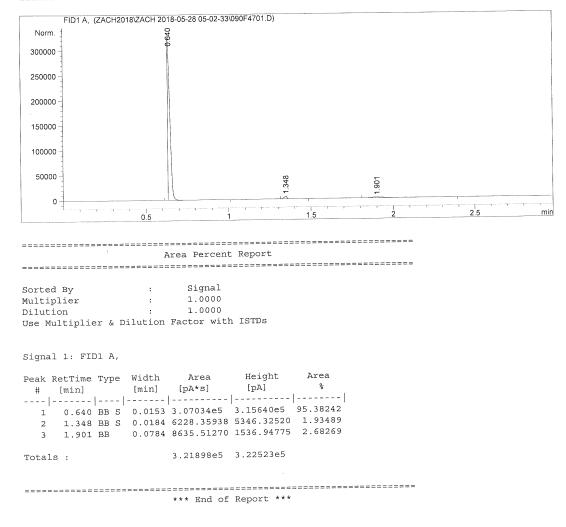
===			
:	Zach Taylor	Seq. Line : 40	
		Location : Vial 90	
		Inj: 1	
	-	Inj Volume : 1 µl	
:	C:\Chem32\1\DATA\ZACH2018\	ZACH 2018-05-28 05-02-33\Z3.	М
:	5/28/2018 4:51:49 AM by Za	ach Taylor	
:	C:\CHEM32\1\METHODS\Z4.M		
:	7/6/2018 9:23:05 PM by Zac	ch Taylor	
	(modified after loading)		
:			
	:::::::::::::::::::::::::::::::::::::::	: 5/28/2018 4:51:49 AM by Za : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Za	<pre>: Instrument 1 Location : Vial 90 : 28-May-18, 08:08:34 Inj : 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z3.1 : 5/28/2018 4:51:49 AM by Zach Taylor : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)</pre>



Instrument 1 7/6/2018 10:34:30 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\090F4701.D Sample Name: 5

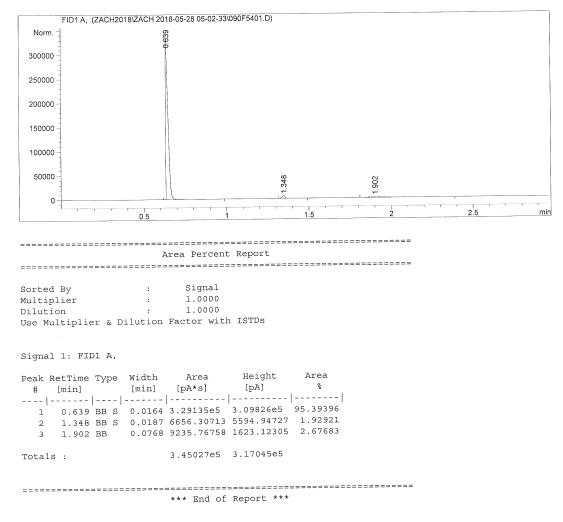
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Acq. Operator : Zach Taylor
                                       Seq. Line : 47
                                        Location : Vial 90
Acq. Instrument : Instrument 1
                                             Inj: 1
Injection Date : 28-May-18, 08:42:04
                                       Inj Volume : 1 µl
             : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z3.M
Acq. Method
           : 5/28/2018 4:51:49 AM by Zach Taylor
Last changed
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
              (modified after loading)
Method Info
             : Alditol lab.
```

Instrument 1 7/6/2018 10:34:34 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\090F5401.D Sample Name: 5

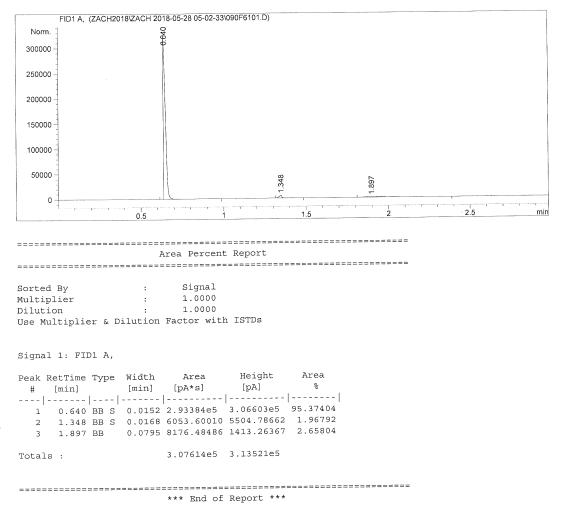
Acq. Operator	:	Zach Taylor	Seq. Line : 54				
Acq. Instrument	:	Instrument 1	Location : Vial 90				
Injection Date	:	28-May-18, 09:15:35	Inj : 1				
2		-	Inj Volume : l µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-05-28 05-02-33\Z3.M				
Last changed	:	5/28/2018 4:51:49 AM	by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\2	Z4.M				
Last changed	:	7/6/2018 9:23:05 PM 3	oy Zach Taylor				
		(modified after load:	ing)				
Method Info	:	Alditol lab.					



Instrument 1 7/6/2018 10:34:39 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\090F6101.D Sample Name: 5

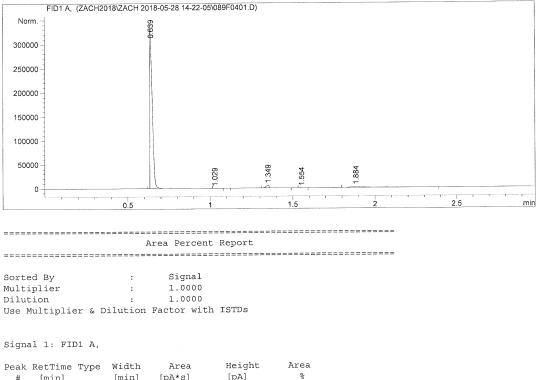
Acq. Operator	:	Zach Taylor	Seq. Line : 61			
Acq. Instrument	:	Instrument 1	Location : Vial 90			
Injection Date	:	28-May-18, 09:49:03	Inj : 1			
5		-	Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-28 05-02-33\Z3.M			
Last changed	:	5/28/2018 4:51:49 AM b	by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	1.M			
Last changed	:	7/6/2018 9:23:05 PM by	/ Zach Taylor			
		(modified after loading	ng)			
Method Info	:	Alditol lab.				



Instrument 1 7/6/2018 10:34:43 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\089F0401.D Sample Name: 5

	= = :		
Acq. Operator	:	Zach Taylor	Seq. Line : 4
Acq. Instrument	:	Instrument 1	Location : Vial 89
Injection Date	:	28-May-18, 14:37:46	Inj : 1
-			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-28 14-22-05\Z3.M
Last changed		5/28/2018 4:51:49 AM by	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
		(modified after loading	·)
Method Info	:	Alditol lab.	



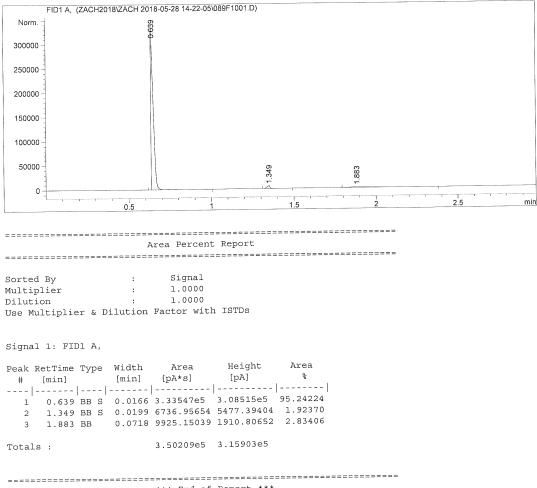
реак к	eciime	TAF)e	WIGCH	Area	ITETAILE	TIL CU
#	[min]			[min]	[pA*s]	[pA]	8
-							
1	0.639	BB	S	0.0168	3.38252e5	3.08616e5	95.22203
2	1.029	BB	Х	0.0200	4.73797	3.28922	0.00133
3	1.349	BB	S	0.0190	6870.97217	5629.54199	1.93426
4	1.554	BB		0.0202	1.27414	1.01580	0.00036
5	1.884	BB		0.0696	1.00955e4	1964.29382	2.84202
Totals	:				3.55224e5	3.16214e5	

*** End of Report ***

Instrument 1 7/6/2018 10:35:46 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\089F1001.D Sample Name: 5

	= =		
Acq. Operator	:	Zach Taylor	Seq. Line : 10
Acq. Instrument			Location : Vial 89
		28-May-18, 15:10:51	Inj: 1
5		-	Inj Volume : 1 µl
Acg. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-28 14-22-05\Z3.M
		5/28/2018 4:51:49 AM by	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.I	M
Last changed	:	7/6/2018 9:23:05 PM by 2	Zach Taylor
5		(modified after loading)
Method Info	:	Alditol lab.	

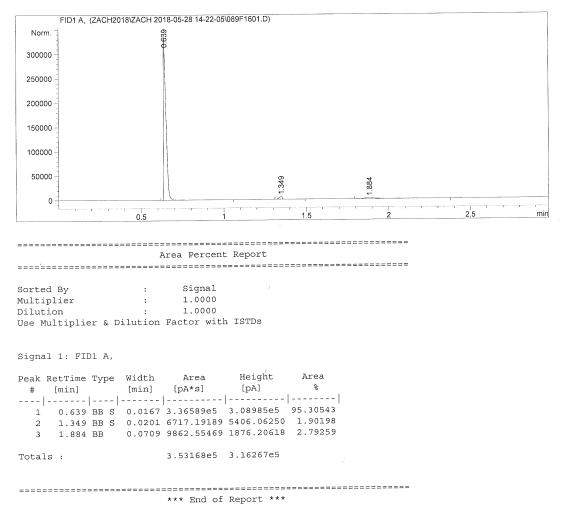


*** End of Report ***

Instrument 1 7/6/2018 10:35:49 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\089F1601.D Sample Name: 5

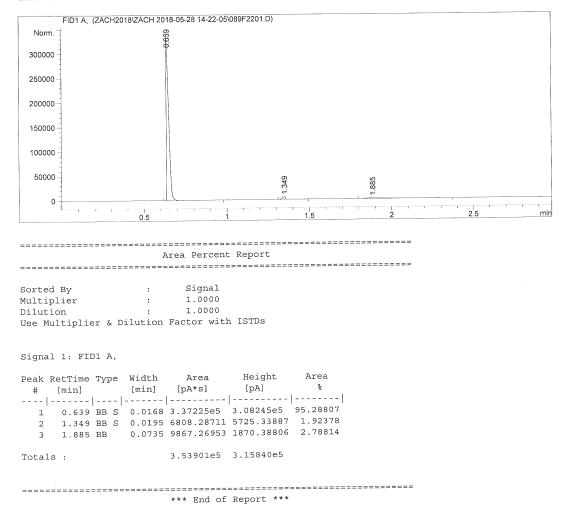
Acq. Operator	:	Zach Taylor	Seq. Line : 16					
Acq. Instrument	:	Instrument 1	Location : Vial 89					
Injection Date	:	28-May-18, 15:43:56	Inj : 1					
			Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	018\ZACH 2018-05-28 14-22-05\Z3.M					
Last changed	:	5/28/2018 4:51:49 AM by	/ Zach Taylor					
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. M					
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor					
		(modified after loading	3)					
Method Info	:	Alditol lab.						



Instrument 1 7/6/2018 10:35:53 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\089F2201.D Sample Name: 5

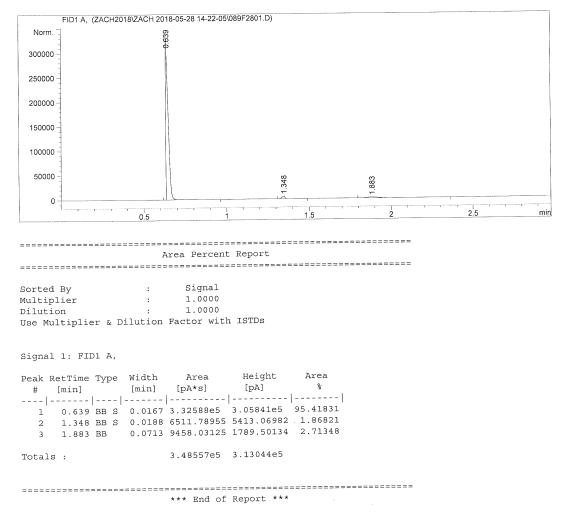
Acq. Operator : Zach Taylor Seq. Line : 22 Location : Vial 89 Acq. Instrument : Instrument 1 Injection Date : 28-May-18, 16:17:01 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M Acq. Method Last changed : 5/28/2018 4:51:49 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 10:35:57 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\089F2801.D Sample Name: 5

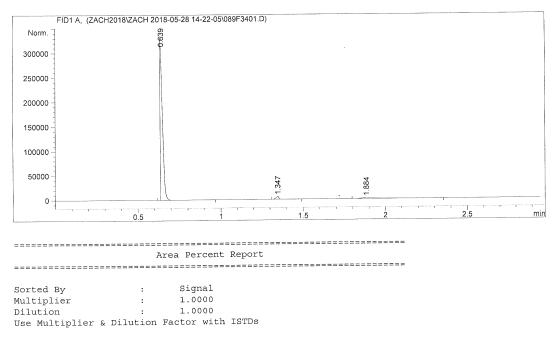
```
Seq. Line : 28
Acq. Operator : Zach Taylor
                                        Location : Vial 89
Acq. Instrument : Instrument 1
Injection Date : 28-May-18, 16:50:04
                                             Inj: 1
                                       Inj Volume : 1 µl
            : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
Acq. Method
           : 5/28/2018 4:51:49 AM by Zach Taylor
Last changed
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
           : 7/6/2018 9:23:05 PM by Zach Taylor
Last changed
              (modified after loading)
Method Info
             : Alditol lab.
```

Instrument 1 7/6/2018 10:36:01 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\089F3401.D Sample Name: 5

Acq. Operator	ach Taylor Seq. Line :	34						
Acq. Instrument	nstrument 1 Location :	Vial 89						
Injection Date	8-May-18, 17:23:06 Inj :	1						
-	Inj Volume :							
Acq. Method	:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 3	14-22-05\Z3.M						
Last changed	/28/2018 4:51:49 AM by Zach Taylor							
Analysis Method	:\CHEM32\1\METHODS\Z4.M							
Last changed	/6/2018 9:23:05 PM by Zach Taylor							
	modified after loading)							
Method Info	lditol lab.							



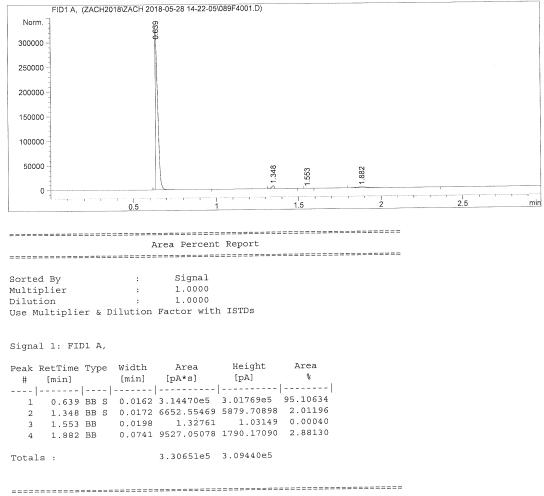
Signal 1: FID1 A,

Peak RetTime # [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %			
1 0.639 2 1.347 3 1.884	BB S	0.0193	3.19221e5 6441.53076 9388.45508		95.27536 1.92255 2.80209			
Totals :			3.35051e5	3.15966e5				

*** End of Report ***

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\089F4001.D Sample Name: 5

pre Malle. 5								
Acq. Operator	:	Zach Taylor	Seq. Line : 40					
Acq. Instrument	:	Instrument 1	Location : Vial 89					
Injection Date	:	28-May-18, 17:56:14	Inj: 1					
-			Inj Volume : 1 µl					
Acg, Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-28 14-22-05\Z3.M					
Last changed		5/28/2018 4:51:49 AM by						
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M					
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor					
		(modified after loading)					
Method Info	:	Alditol lab.						

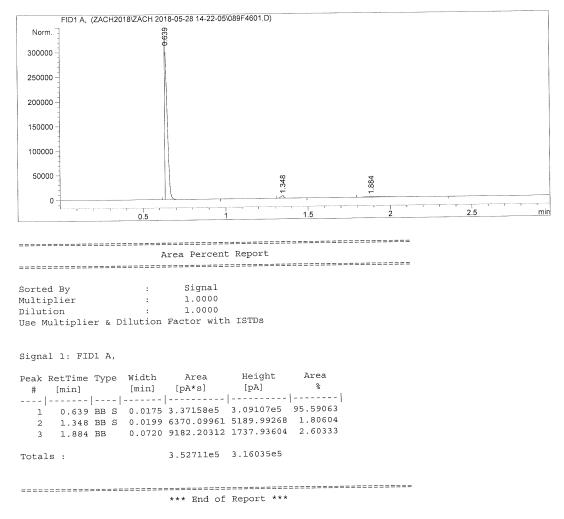


*** End of Report ***

Instrument 1 7/6/2018 10:36:10 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\089F4601.D Sample Name: 5

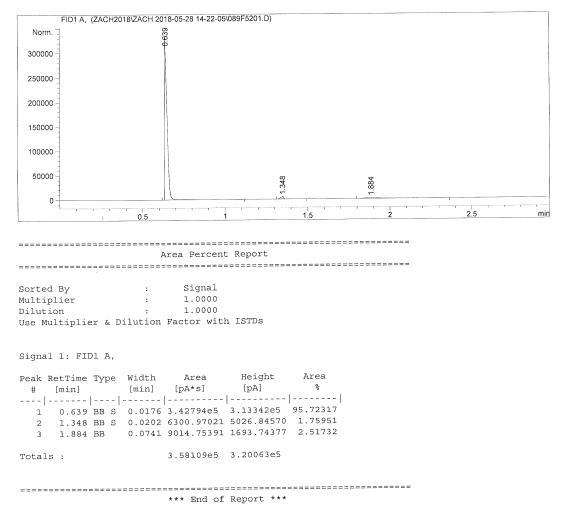
Acq. Operator : Zach Taylor Seq. Line : 46 Location : Vial 89 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 28-May-18, 18:29:20 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M Acq. Method : 5/28/2018 4:51:49 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 10:36:14 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\089F5201.D Sample Name: 5

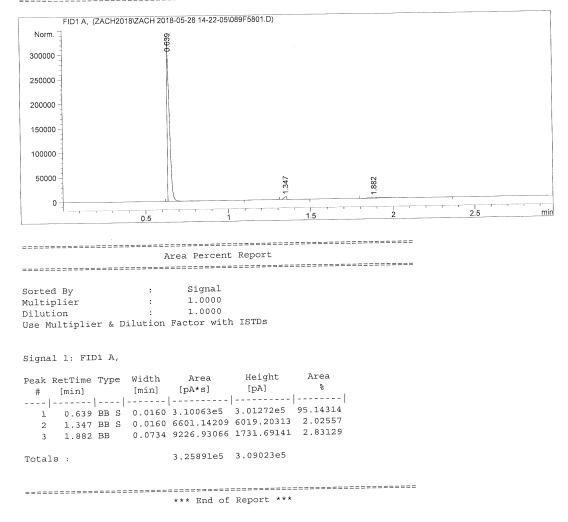
	: == :		
Acq. Operator	:	Zach Taylor	Seq. Line : 52
Acq. Instrument	:	Instrument 1	Location : Vial 89
Injection Date	:	28-May-18, 19:02:30	Inj : l
			Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-28 14-22-05\Z3.M
Last changed	:	5/28/2018 4:51:49 AM	by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor
		(modified after loadi	ng)
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:36:18 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\089F5801.D Sample Name: 5

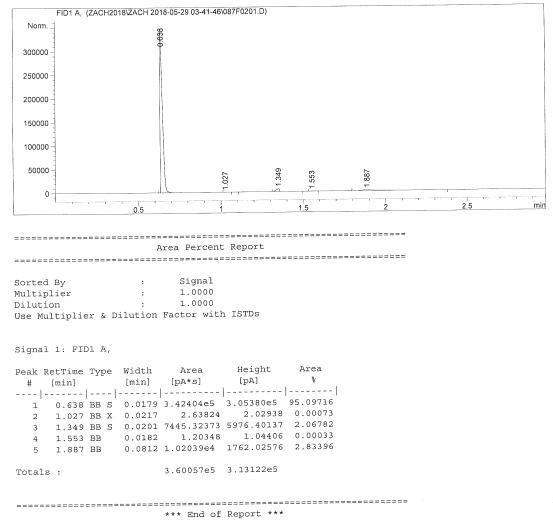
upre name. 5								
Acq. Operator	:	Zach Taylor	Seq. Line : 58					
Acq. Instrument	:	Instrument 1	Location : Vial 89					
Injection Date	:	28-May-18, 19:35:33	Inj: 1					
11190001011 2000		-	Inj Volume : 1 µl					
Acq. Method			ACH 2018-05-28 14-22-05\Z3.M					
Last changed		5/28/2018 4:51:49 AM by Zac	h Taylor					
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M						
Last changed	:	7/6/2018 9:23:05 PM by Zach (modified after loading)	Taylor					
Method Info	:	(modified after loading) Alditol lab.						



Instrument 1 7/6/2018 10:36:22 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\087F0201.D Sample Name: 5

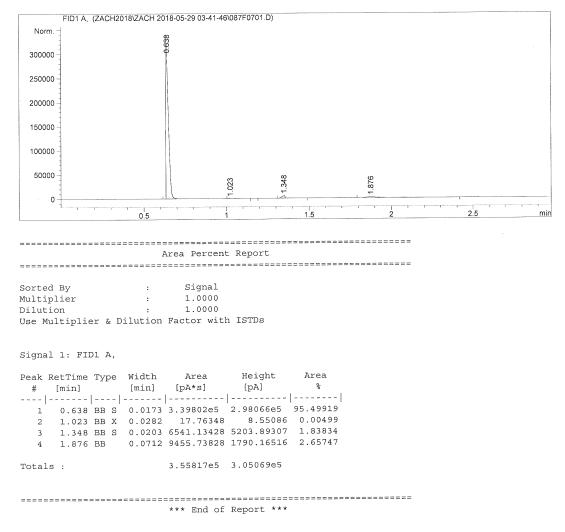
Seq. Line : 2 Acq. Operator : Zach Taylor Location : Vial 87 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 03:48:24 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z3.M Acq. Method : 5/28/2018 4:51:49 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info



Instrument 1 7/6/2018 10:36:38 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\087F0701.D Sample Name: 5

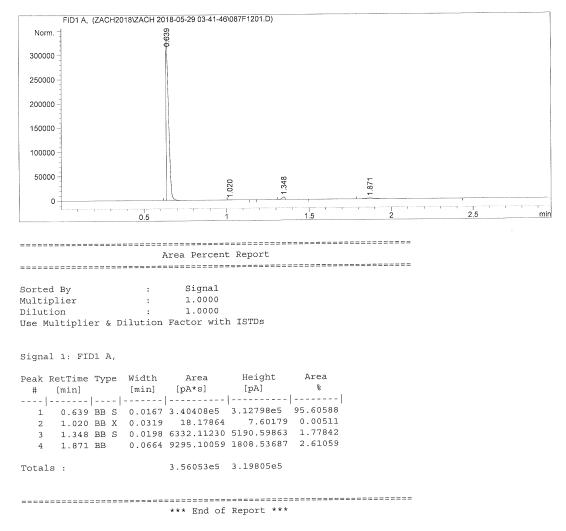
Seq. Line : Acq. Operator : Zach Taylor 7 Location : Vial 87 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 04:20:36 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z3.M Acq. Method : 5/28/2018 4:51:49 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 10:36:40 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\087F1201.D Sample Name: 5

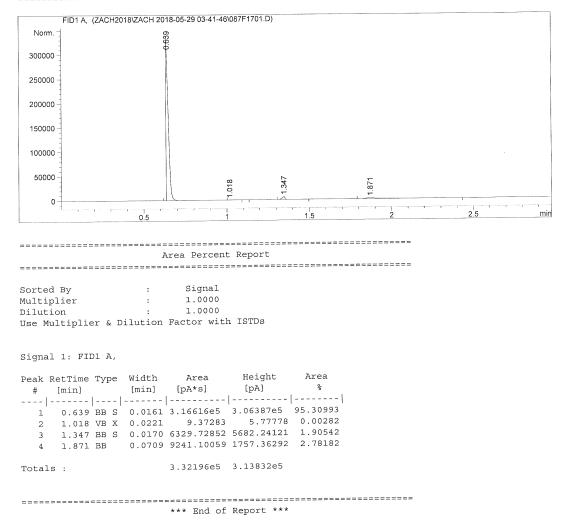
	= ==									
Acq. Operator	:	Zach Taylor	Seq. Line : 12							
Acq. Instrument	:	Instrument 1	Location : Vial 87							
Injection Date	:	29-May-18, 04:52:46	Inj: 1							
			Inj Volume : 1 µl							
Acq. Method	:	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-05-29 03-41-46\Z3.M							
Last changed	:	5/28/2018 4:51:49 AM	by Zach Taylor							
Analysis Method	:	C:\CHEM32\1\METHODS\2	34.M							
Last changed	:	7/6/2018 9:23:05 PM b	by Zach Taylor							
-		(modified after load:	ing)							
Method Info	:	Alditol lab.								



Instrument 1 7/6/2018 10:36:43 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\087F1701.D Sample Name: 5

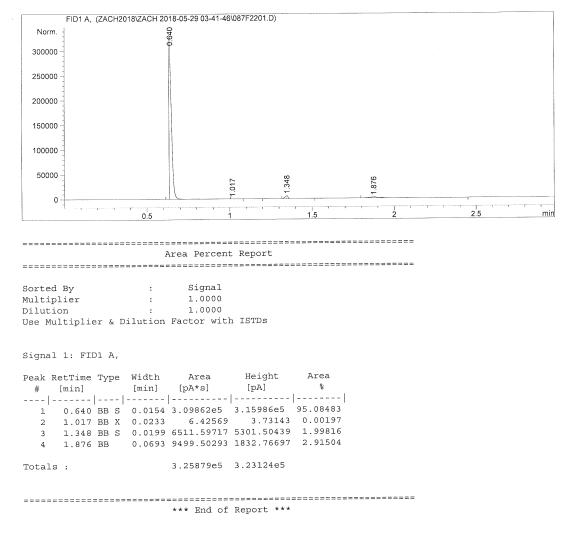
ipre name. 5			
	=		
Acq. Operator	:	Zach Taylor	Seq. Line : 17
Acq. Instrument	:	Instrument 1	Location : Vial 87
Injection Date	:	29-May-18, 05:25:00	Inj : l
		-	Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-29 03-41-46\Z3.M
Last changed		5/28/2018 4:51:49 AM by	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Z	ach Taylor
		(modified after loading)	
Method Info	:	Alditol lab.	



Instrument 1 7/6/2018 10:36:47 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\087F2201.D Sample Name: 5

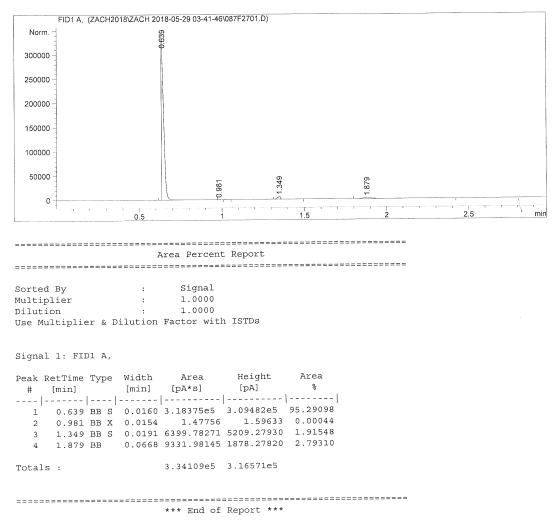
Acq. Operator : Zach Taylor Seq. Line : 22 Location : Vial 87 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 05:57:15 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z3.M Acq. Method Last changed : 5/28/2018 4:51:49 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 10:36:50 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\087F2701.D Sample Name: 5

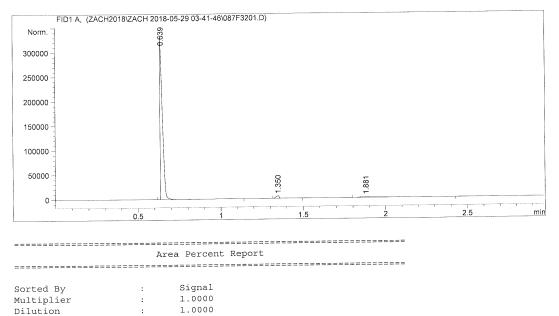
Seq. Line : 27 Acq. Operator : Zach Taylor Location : Vial 87 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 06:29:31 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z3.M Acq. Method Last changed : 5/28/2018 4:51:49 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 10:36:55 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\087F3201.D Sample Name: 5

```
Acq. Operator : Zach Taylor
                                        Seq. Line : 32
                                        Location : Vial 87
Acq. Instrument : Instrument 1
                                             Inj: 1
Injection Date : 29-May-18, 07:01:50
                                       Inj Volume : 1 µl
             : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z3.M
Acq. Method
            : 5/28/2018 4:51:49 AM by Zach Taylor
Last changed
Analysis Method : C:\CHEM32\1\METHODS\Z4.M
            : 7/6/2018 9:23:05 PM by Zach Taylor
Last changed
               (modified after loading)
Method Info
             : Alditol lab.
```



Signal 1: FID1 A,

Dilution

Peak Re #	etTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
 1 2 3	0.639 1.350 1.881	BB		0.0201	3.34160e5 6365.99854 9270.66113		95.52979 1.81991 2.65030
Totals	:				3.49797e5	3.19260e5	

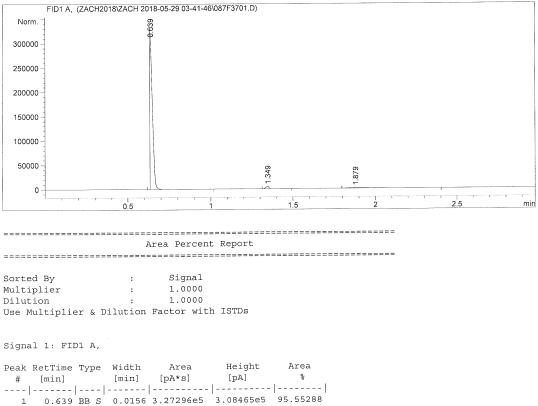
. Use Multiplier & Dilution Factor with ISTDs

_____ *** End of Report ***

Instrument 1 7/6/2018 10:36:57 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\087F3701.D Sample Name: 5

	***====================================							
Acq. Operator	:	Zach Taylor	Seq. Line : 37					
Acq. Instrument	:	Instrument 1	Location : Vial 87					
Injection Date	:	29-May-18, 07:34:10	Inj : 1					
			Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-29 03-41-46\Z3.M					
Last changed	:	5/28/2018 4:51:49 AM	by Zach Taylor					
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M					
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor					
		(modified after loadi	ng)					
Method Info	:	Alditol lab.						



+	0.639 66 8	0.0150	3.2/29005	3.0040505	55.55200
2	1.349 BB S	0.0193	6212.87402	5008.11377	1.81383
3	1.879 BB	0.0644	9019.78223	1893.39917	2.63329

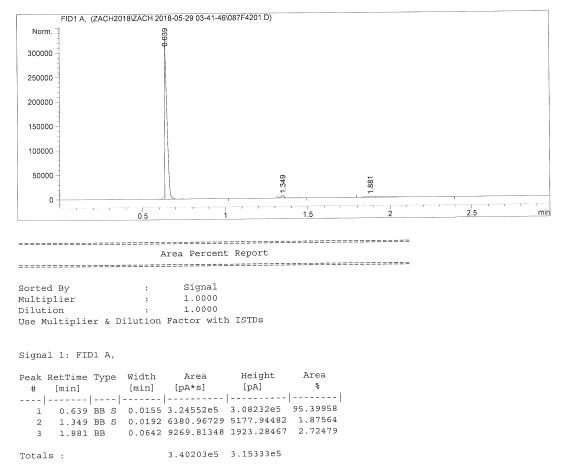
Totals : 3.42529e5 3.15366e5

*** End of Report ***

Instrument 1 7/6/2018 10:37:02 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\087F4201.D Sample Name: 5

ipre Mane. 5			
Acq. Operator	:	Zach Taylor	Seq. Line : 42
Acq. Instrument	:	Instrument 1	Location : Vial 87
Injection Date	:	29-May-18, 08:06:24	Inj: 1
			Inj Volume : 1 µl
Acq. Method		C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z3.M	
Last changed	:	5/28/2018 4:51:49 AM by Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor	
		(modified after loading)	
Method Info	:	Alditol lab.	



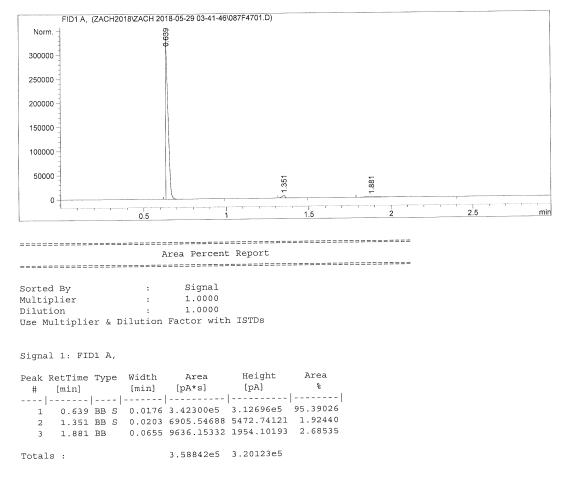
*** End of Report ***

Instrument 1 7/6/2018 10:37:04 PM Zach Taylor

Acetophenone: Sequence #3 – Run #10

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\087F4701.D Sample Name: 5

npre name. 5	pre Name. 5							
Acq. Operator	:	Zach Taylor	Seq. Line : 47					
Acq. Instrument	:	Instrument 1	Location : Vial 87					
Injection Date	:	29-May-18, 08:38:38	Inj : 1					
2		-	Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-29 03-41-46\Z3.M					
Last changed		5/28/2018 4:51:49 AM by						
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M						
Last changed	:	7/6/2018 9:23:05 PM by Z	ach Taylor					
. –		(modified after loading)						
Method Info	:	Alditol lab.						

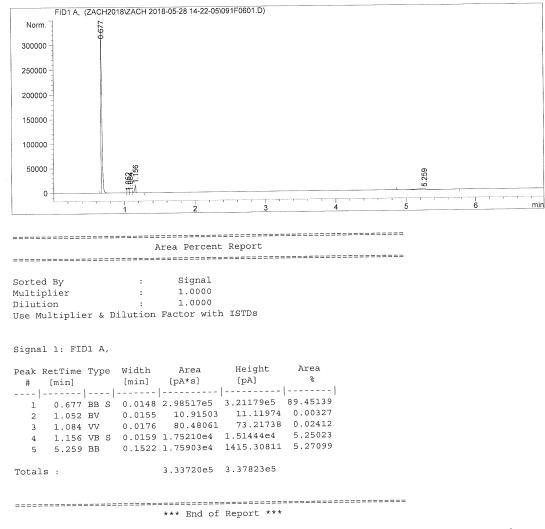


*** End of Report ***

Instrument 1 7/6/2018 10:37:08 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F0601.D Sample Name: 7

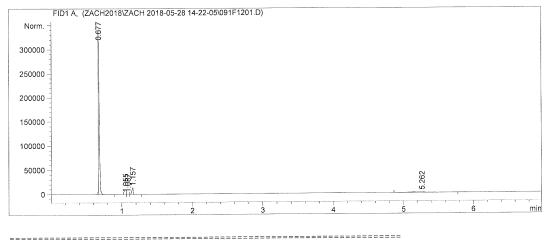
Acq. Operator	:	Zach Taylor	Seq. Line : 6				
Acq. Instrument	:	Instrument 1	Location : Vial 91				
		28-May-18, 14:48:12	Inj : 1				
3		-	Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-28 14-22-05\Z5.M	I			
Last changed	:	5/28/2018 2:08:29 PM	by Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M				
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor				
0		(modified after loadi	ng)				
Method Info	:	Alditol lab.					



Instrument 1 7/6/2018 10:40:50 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F1201.D Sample Name: 7

Acq. Operator	ach Taylor Seq. I	line : 12					
Acq. Instrument	nstrument 1 Locat	ion : Vial 91					
Injection Date	B-May-18, 15:21:14	Inj : 1					
	Inj Vol	ume : 1 µl					
Acq. Method	:\Chem32\1\DATA\ZACH2018\ZACH 2018-C	5-28 14-22-05\Z5.M					
Last changed	/28/2018 2:08:29 PM by Zach Taylor						
Analysis Method	:\CHEM32\1\METHODS\Z4.M						
Last changed	/6/2018 9:23:05 PM by Zach Taylor						
-	nodified after loading)						
Method Info	lditol lab.						



Area Percent Report

Sorted By		:	Signal		
Multiplier		:	1.0000		
Dilution		:	1.0000		
Use Multiplier	&	Dilution	Factor with	ISTDs	

Signal 1: FID1 A,

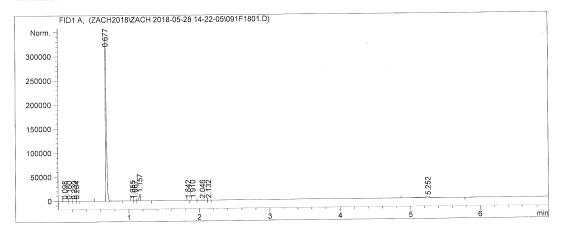
Peak Re #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.677	BB S	0.0155	3.18225e5	3.22957e5	90.20490
2	1.055	BV	0.0173	10.26330	9.54466	0.00291
3	1.087	vv	0.0200	77.59126	63.05553	0.02199
4	1.157	VB S	0.0196	1.67761e4	1.32588e4	4.75541
5	5.262	BB	0.1533	1.76912e4	1420.30664	5.01479
Totals	:			3.52780e5	3.37709e5	

*** End of Report ***

Instrument 1 7/6/2018 10:40:52 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F1801.D Sample Name: 7

Acq. Operator	:	Zach Taylor	Seq. Line : 18						
Acq. Instrument	:	Instrument 1	Location : Vial 91						
Injection Date	:	28-May-18, 15:54:21	Inj : 1						
5		-	Inj Volume : 1 µl						
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-28 14-22-05\Z5.M						
Last changed	:	5/28/2018 2:08:29 PM b	y Zach Taylor						
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	.M						
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor						
-		(modified after loadin	.g)						
Method Info	:	Alditol lab.							



Area Percent Report

Sorted By	:	Signal
Multiplier	:	1.0000
Dilution	:	1.0000
Use Multiplier	& Dilution	Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			- -				
1	0.098	вv		0.0296	2.91379	1.24884	0.00082
2	0.160	vv		0.0351	3.50801	1.66504	0.00099
3	0.230	VV		0.0216	3.80064	2.51598	0.00107
4	0.264	VB		0.0149	1.15378	1.01182	0.00032
5	0.677	BB	S	0.0156	3.21010e5	3.22490e5	90.22117
6	1.055	vv		0.0170	11.77359	10.58774	0.00331
7	1.087	VV		0.0211	81.02094	64.16161	0.02277
8	1.157	VB	S	0.0179	1.69500e4	1.34271e4	4,76388
9	1.842	BB		0.0150	1.34351	1.24191	0.00038
10	1.910	BB		0.0447	5.43254	1.49881	0.00153
11	2.046	BV		0.0628	11.20793	2.16542	0.00315

Instrument 1 7/6/2018 10:40:56 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F1801.D Sample Name: 7 Acq. Operator : Zach Taylor Acq. Instrument : Instrument 1 Seq. Line : 18 Location : Vial 91 Injection Date : 28-May-18, 15:54:21 Inj Volume : 1 µl Inj: 1
 Acq. Method
 : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z5.M

 Last changed
 : 5/28/2018 2:08:29 PM by Zach Taylor
 Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab.
 Peak RetTime Type Width
 Area
 Height
 Area

 # [min]
 [min]
 [pA*s]
 [pA]
 %

 ----|------|

 ------|
 ------|

 12
 2.132
 VB
 0.0235
 2.17940
 1.36220
 0.00061

 13
 5.252
 BB
 0.1532
 1.77190e4
 1431.44543
 4.98001
 3.55803e5 3.37436e5 Totals :

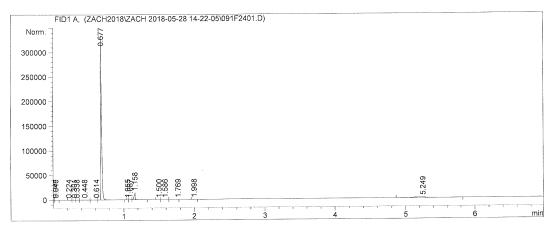
*** End of Report ***

Instrument 1 7/6/2018 10:40:56 PM Zach Taylor

Page 2 of 2

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F2401.D Sample Name: 7

Acq. Operator	:	Zach Taylor	Seq. Line : 24				
Acq. Instrument	:	Instrument 1	Location : Vial 91				
Injection Date	:	28-May-18, 16:27:24	Inj: 1				
			Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-28 14-22-05\Z5.M				
Last changed	:	5/28/2018 2:08:29 PM by	Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M				
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor				
		(modified after loading	r)				
Method Info	:	Alditol lab.					



Area Percent Report

Sorted By	:	Signal	

SOILED BY		•	Didi	104 1	
Multiplier		:	1.0000		
Dilution		:	1.00	000	
Use Multiplier	&	Dilution	Factor	with	ISTDs

Signal 1: FID1 A,

Peak	RetTime	Тур	e	Width	Area	Height	Area
#	[min]			[min]	[pA*s]	[pA]	8
			- -				
1	8.96e-3	BV		0.0107	1.25275	1.77101	0.00035
2	0.040	VB		0.0134	2.10374	2.08175	0.00060
3	0.224	BV		0.0215	3.73660	2.89690	0.00106
4	0.301	vv		0.0186	3.12392	2.49851	0.00088
5	0.338	VV		0.0302	5.32714	2.52400	0.00151
6	0.448	VV		0.0572	9.60341	2.04419	0.00272
7	0.614	vv		0.0458	7.49590	2.01296	0.00212
8	0.677	VB	s	0.0153	3.19006e5	3.28018e5	90.32737
9	1.055	ВV		0.0155	9.51892	9.28944	0.00270
10	1.087	vv		0.0193	76.92912	62.03866	0.02178
11	1.158	VB	S	0.0162	1.65887e4	1.40017e4	4.69713

Instrument 1 7/6/2018 10:40:58 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F2401.D Sample Name: 7

Acq. Operator :	Zach Tay	lor		Seq. Line : 24
Acq. Instrument :				Location : Vial 91
Injection Date :	28-Mav-1	8, 16:27:24	Ł	Inj: l
				Inj Volume : 1 µl
Aca Method	C:\Chem3	2\1\DATA\ZA	ACH2018\ZACH	2018-05-28 14-22-05\Z
Last changed	5/28/201	8 2:08:29 H	M by Zach T	aylor
Analysis Method	C \ CHEM	2\1\METHODS	S\Z4.M	
Last changed	7/6/2018	9.23:05 PM	4 by Zach Ta	ylor
		ed after loa		-
Method Info			5.	
Mechod Thro	, mildicol	10001		
Peak RetTime Type	- Width	Area	Height	Area
11 [main]	[min]	[nA*e]	[pA]	5
# [min]				
12 1 500 BV	0.0117	1.04471	1.20822	0.00030
13 1.586 VV	0.0454	4.03403	1.09437	0.00114
14 1.769 VV	0.0534	5.09400	1.28656	0.00144
15 1.998 BB	0.0363	3,80719	1.28058	0.00108
16 5.249 BB	0.1494	1.74387e4	1383.84644	4.93782
10 0.240 00	0.1101			
Totals :		3.53167e5	3.43495e5	
IUCAID .		0.000000		
			Doport ***	

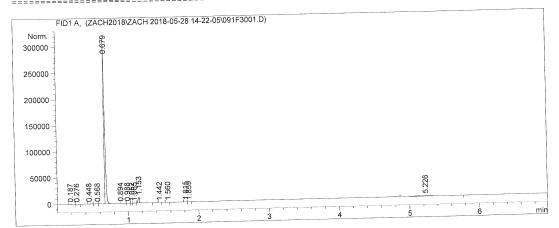
*** End of Report ***

Instrument 1 7/6/2018 10:40:58 PM Zach Taylor

Page 2 of 2

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F3001.D Sample Name: 7

nŗ	ole Name: 7			
	Acq. Instrument	:	Zach Taylor Seq. Line : 30 Instrument 1 Location : Vial 91	
	-		28-May-18, 17:00.20 Inj Volume : 1 µl	
	Acq. Method Last changed	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z5.M 5/28/2018 2:08:29 PM by Zach Taylor	
	Analysis Method		C:\CHEM32\1\METHODS\Z4.M	
	Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)	
	Method Info	:	Alditol lab.	



Area Percent Report

ALCA FOLOMO NOPOLO

Sorted By		:	Signa.	1	
Multiplier		:	1.0000	Э	
Dilution		:	1.0000	0	
Use Multiplier	۶.	Dilution	Factor W	ith	ISTDs
Ose Muicipiier	CX.	DITUCION			

Signal 1: FID1 A,

Peak RetTime # [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
					0.00314
1 0.187	BV	0.0406	9.75495	2.92088	
2 0.276	VB	0.0396	5.48143	1.92896	0.00176
3 0.448		0.0298	3.18926	1.39759	0.00103
4 0.568		0.0281	5.46111	2.40252	0.00176
		0.0148	2.81503e5	2.82446e5	90.53944
	• • · · -	0.0417	5.70955	2.28048	0.00184
6 0.894		0.010	4.45955	1.89788	0.00143
7 0.988	VV X	0.0392		7.42206	0.00288
8 1.052	VV T	0.0208	8.95735		0.02070
9 1.085	VV T	0.0211	64.37167	50.98314	
10 1.153	VB S	0.0213	1.42751e4	1.11721e4	4.59126
11 1.442		0.0137	1.29549	1.34208	0.00042

Instrument 1 7/6/2018 10:41:02 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F3001.D Sample Name: 7

Acq. Operator :	Zach Taylor		Seq. Line : 30
Acq. Instrument :			Location : Vial 91
Injection Date :	28-May-18, 17:00:26		Inj: 1
-			Inj Volume : 1 µl
Acq. Method :	C:\Chem32\1\DATA\ZA	CH2018\ZACH	2018-05-28 14-22-05\Z5.M
Last changed :	5/28/2018 2:08:29 P	M by Zach T	aylor
Analysis Method :	C:\CHEM32\1\METHODS	\Z4.M	
Last changed :	7/6/2018 9:23:05 PM	by Zach Ta	ylor
Labe onangea .	(modified after loa		
Method Info :		5	
Hethod into .			
			==================
Deak RetTime Tune	Width Area	Height	Area
# [min]	[min] [nA*s]	[Aq]	olo
# [(((±11)			
12 1 560 BV	0.0284 3.06786	1.37764	0.00099
12 1.500 BV	0.0244 1.82349	1.08380	0.00059
14 1 050 VB	0.0181 1.87251	1.39400	0.00060
14 1.055 VD	0.1459 1.50241e4	1221.21716	4.83218
15 5.226 BB	0.1455 1.5024104		
m to a lar	3.10918e5	2 94916e5	
Totals :	3.1091865	2.9191000	

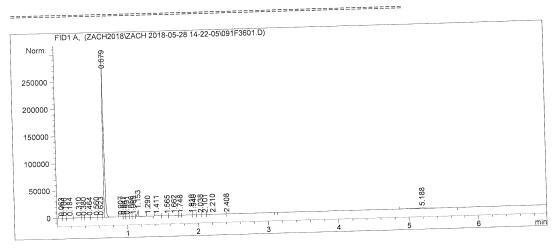
*** End of Report ***

Instrument 1 7/6/2018 10:41:02 PM Zach Taylor

Page 2 of 2

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F3601.D Sample Name: 7 -----

		Seq. Line : 36
Acq. Instrument Injection Date	: 28-May-18, 17:33:32	Location : Vial 91 Inj : 1 Inj Volume : 1 µl
Indt chanded	: C:\Chem32\1\DATA\ZACH2018\ : 5/28/2018 2:08:29 PM by Za : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zac (modified after loading)	ZACH 2018-05-28 14-22-05\Z5.M ch Taylor
Method Info	: Alditol lab.	



Area Percent Report

Signal : Sorted By 1.0000 Multiplier : 1.0000 : Dilution Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak RetTime Type	Width	Area	Height	Area
# [min]	[min]	[pA*s]	[pA]	%
1 0.063 BV 2 0.106 VV 3 0.184 VB 4 0.310 BV 5 0.380 VV 6 0.464 VV 7 0.560 VV 8 0.623 VV 9 0.679 VV S 10 0.907 BV X 11 0.947 VV X	0.0293 0.0250 0.0364 0.0449 0.0144 0.0278 0.0400 0.0361 0.0142 0.0276 0.0227	9.13883 10.08897 16.33723 8.27021 2.56633 8.40334 19.49664 26.12001 2.54902e5 5.98358 3.14041	4.35919 5.20178 5.73588 2.80051 2.49613 3.74075 6.05374 9.03303 2.69402e5 2.76693 2.30983	0.00325 0.00358 0.00580 0.00294 0.00294 0.00298 0.00692 0.00692 0.00927 90.51051 0.00212 0.00212

Instrument 1 7/6/2018 10:41:10 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F3601.D Sample Name: 7 Acq. Operator: Zach TaylorSeq. Line : 36Acq. Instrument :Instrument 1Location : Vial Location : Vial 91 Injection Date : 28-May-18, 17:33:32 Inj: 1 Inj Volume : 1 µl
 Acq. Method
 : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z5.M

 Last changed
 : 5/28/2018 2:08:29 PM by Zach Taylor
 Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab. Peak RetTime Type Width Area Height Area # [min] [min] [pA*s] [pA] %

	[-	1	
12	0.991	vv	Х	0.0287	4.75932	2.76226	0.00169	
13	1.056	vv	Х	0.0211	9.48362	7.52323	0.00337	
14	1.085	vv	Х	0.0175	57.16728	49.50750	0.02030	
15	1.153	VB	S	0.0181	1.31531e4	1.02822e4	4.67041	
16	1.290	вV	Х	0.0115	1.51730	2.20383	0.00054	
17	1.411	vv	Т	0.0539	9.72370	2.20118	0.00345	
18	1.565	vv	Т	0.0515	17.82695	4.69837	0.00633	
19	1.662	vv	Т	0.0823	50.57536	7.31409	0.01796	
20	1.748	vv	Т	0.0291	19.45910	8.50636	0.00691	
21	1.910	vv	Т	0.0821	96.88002	14.18502	0.03440	
22	1.940	vv	Т	0.0508	42.81895	14.05026	0.01520	
23	2.038	vv	Т	0.0519	67.69730	16.21708	0.02404	
24	2.101	vv	Т	0.0458	68.68067	18.12964	0.02439	
25	2.210	vv	Т	0.1891	326.38251	20.65963	0.11589	
26	2.408	VB	Т	0.3654	486.26797	22.17991	0.17266	
27	5.188	BB		0.1365	1.22030e4	1061.45386	4.33305	
Totald					2.81627e5	2.80980e5		

Totals :

2.81627e5 2.80980e5

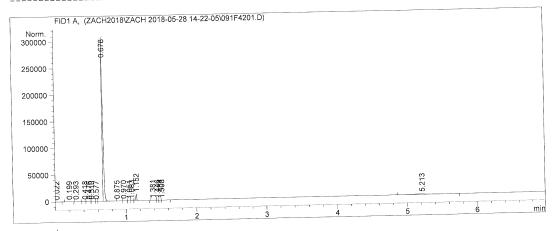
*** End of Report ***

Instrument 1 7/6/2018 10:41:10 PM Zach Taylor

Page 2 of 2

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F4201.D Sample Name: 7

nple Name: 7	
Acq. Operator Acq. Instrument	: Instrument 1 Location : Vial 91
Injection Date	Inj Volume : 1 µl
Acq. Method Last changed Analysis Method Last changed	<pre>: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z5.M : 5/28/2018 2:08:29 PM by Zach Taylor : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)</pre>
Method Info	: Alditol lab.



Area Percent Report

Sorted By : Signal

Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak H #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
						0.00374
1	0.022	BB	0.0496	10.52908	2.69376	
2	0.199	BB	0.0456	13.28249	3.65448	0.00472
3	0.293	BB	0.0266	2.68746	1.33872	0.00095
4	0.418		0.0239	2.72905	1.74049	0.00097
5	0.476		0.0305	6.33675	2.63160	0.00225
-			0.0333	8,73491	3.21340	0.00310
6	0.510			5.28429	3,88589	0.00188
7	0.577		0.0183		2.65734e5	90.45483
8	0.678	BV S	0.0144	2.54648e5		0.00226
9	0.875	BV T	0.0394	6.37217	2.69884	
10	0.970	PV T	0.0428	4.33749	1.68858	0.00154
11	1.051		0.0177	9.35993	8.44805	0.00332

Instrument 1 7/6/2018 10:41:12 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F4201.D Sample Name: 7

	low		Seq. Line : 42
Acq. Operator : Zach Tay	101		Location : Vial 91
Acq. Instrument : Instrume	nt 1		Inj: 1
Injection Date : 28-May-1	.8, 18:06:37		Inj Volume : 1 µl
			$111 = 0.10 \text{ of } 28 = 14 - 22 = 0.5 \ Z5 \text{ M}$
Acq. Method : C:\Chem3	2\1\DATA\ZA	CH2018\ZACH	2018-05-28 14-22 05 (25
Last changed : 5/28/201	.8 2:08:29 P	M by Zach Ta	aylor
Analysis Method : C:\CHEM3	2\1\METHODS	\Z4.M	
Last changed : 7/6/2018	3 9:23:05 PM	by Zach Ta	ylor
(modifie	ed after loa	ding)	
Method Info : Alditol	lab.		
Peak RetTime Type Width	Area	Height	Area
u fuderl [min]	[nA*e]	DA	6
12 1 083 PV T 0.0187	59.59016	53.01476	0.0211/
12 1 152 VB S 0.0183	1.31868e4	1.21361e4	4.68414
14 1 381 BV 0.0397	5.55194	2.20786	0.00197
15 1 446 177 0 0193	2.26092	1.72407	0.00080
16 1 484 107 0 0148	1.63502	1.5444/	0.00056
17 1 508 177 0.0656	10.37446	1.96367	0.00369
18 5.213 BB 0.1499	1.35357e4	1145.28101	4.80808
10 3.213 00 0.1199			
Totals :	2.81520e5	2.79108e5	
IULAID .			

*** End of Report ***

Instrument 1 7/6/2018 10:41:12 PM Zach Taylor

Page 2 of 2

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F4801.D Sample Name: 7 Seq. Line : 48 Acq. Operator : Zach Taylor Location : Vial 91 Acq. Instrument : Instrument 1 Injection Date : 28-May-18, 18:39:46 Inj : 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z5.M Acq. Method : 5/28/2018 2:08:29 PM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info _____ FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\091F4801.D) 0.677 Norm. -300000 250000 200000 150000 100000 50000 261 999 988 361 553 i. _____ Area Percent Report _____ Signal : Sorted By 1.0000 : Multiplier 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Area Height Peak RetTime Type Width Area olo [pA] [min] [pA*s] # [min] ------3.38467 0.00142 5.14246 1 0.051 BV 0.0209 4.02014 0.00298 10.79174 0.097 VB 0.0345 2 4.17812 0.00250 9.03307 0.207 BV 0.0292 З 2.11261 0.00089 3.23166 0.0266 0.264 VV 4 1.35519 0.00047 1.69190 0.0162 5 0.300 VB 2.27715 0.00050 1.80370 0.0116 0.463 BV 6 2.44113 0.00154

0.677 VV S 0.0158 3.26723e5 3.21947e5 90.24628 10 3.24010 0.901 BV T 0.0237 11

0.493 VV

0.561 VV

0.622 VV

7

8

9

Instrument 1 7/6/2018 10:41:17 PM Zach Taylor

0.0382

0.0234

0.0317

5.59002

5.34285

10.56227

3.08867 0.00148

4.20164 0.00292

1.84812 0.00089

Page 1 of 2

min

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F4801.D Sample Name: 7

Acq. Operator				Seq. Line : 48
Acq. Instrument	. Instrum	ent. 1		Location : Vial 91
Injection Date	. 28-May-	18 18:39:46		Inj : 1
-				Inj Volume : 1 µl
	. C.\Chem	32/1/DATA/ZA	CH2018\ZACH	2018-05-28 14-22-05\Z5
Acq. Method Last changed	: C:\Chem	10 2.08.29 1	M by Zach I	aylor
Last changed	: 5/26/20	10 2.00.20 -	3\Z4.M	
Analysis Method Last changed	: C:\CHEM	0 0.03.05 DM	hv Zach Ta	vlor
Last changed	: //6/201	ed after loa	ding)	<u>×</u>
			1011119/	
Method Info	: Alditol	lap.		
=================				
a second more	width	Area	Height	Area
Peak RetTime Ty				
# [min]	[min]	[pA*s]	[pa]	
# [min]	[min] 	[pA*s] 4.05138	(PA)	0.00112
# [min] 12 0.977 VV	[min] / T 0.0345 / T 0.0245	[pA*s] 5 4.05138 5 89.89602	1.95516 60.77319	0.00112 0.02483
# [min] 12 0.977 VV 13 1.088 PV	[min] 7 T 0.0345 7 T 0.0245 8 G 0.190	[pA*s] 5 4.05138 5 89.89602 0 1.70157e4	[PA] 1.95516 60.77319 1.32218e4	 0.00112 0.02483 4.70002
# [min] 12 0.977 VV 13 1.088 PV 14 1.158 VE	[min] 7 T 0.0345 7 T 0.0245 3 S 0.0190 0 0.0169	[pA*s] 5 4.05138 5 89.89602 0 1.70157e4 - 1.60511	(pA) 1.95516 60.77319 1.32218e4 1.22319	0.00112 0.02483 4.70002 0.00044
<pre># [min] 12 0.977 VV 13 1.088 PV 14 1.158 VE 15 1.444 BE 15 1.404 BE</pre>	[min] 7 T 0.0345 7 T 0.0245 3 S 0.0190 3 0.0169	[pA*s] 4.05138 89.89602 1.70157e4 1.60511 1.92558	[PA] 1.95516 60.77319 1.32218e4 1.22319 1.72731	0.00112 0.02483 4.70002 0.00044 0.00053
# [min] 12 0.977 VV 13 1.088 PV 14 1.158 VE	[min] 7 T 0.0345 7 T 0.0245 3 S 0.0190 3 0.0169	[pA*s] 4.05138 89.89602 1.70157e4 1.60511 1.92558	[PA] 1.95516 60.77319 1.32218e4 1.22319 1.72731	0.00112 0.02483 4.70002 0.00044 0.00053
<pre># [min] 12 0.977 VV 13 1.088 PV 14 1.158 VE 15 1.444 BE 15 1.404 BE</pre>	[min] 7 T 0.0345 7 T 0.0245 3 S 0.0190 3 0.0169	[pA*s] 4.05138 8.9.89602 1.70157e4 1.60511 5.1.92558 3.1.81423e4	[PA] 1.95516 60.77319 1.32218e4 1.22319 1.72731	0.00112 0.02483 4.70002 0.00044 0.00053

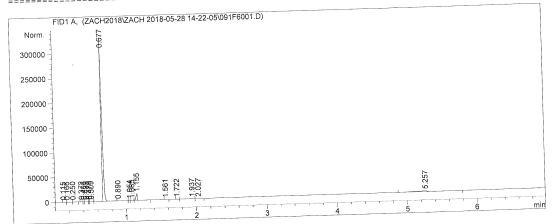
*** End of Report ***

Instrument 1 7/6/2018 10:41:17 PM Zach Taylor

Page 2 of 2

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F6001.D Sample Name: 7

mple Name: 7		
Acg Instrument	: Zach Taylor Seq. Line : 60 : Instrument 1 Location : Vial 91 : 28-May-18, 19:45:55 Inj : 1 Inj Volume : 1 µl	
Acq. Method	<pre>: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-C5-28 14-22-05\Z5.M : 5/28/2018 2:08:29 PM by Zach Taylor : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab.</pre>	



Area Percent Report

Signal Sorted By : 1.0000 Multiplier : 1.0000 : Dilution Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak RetTime Typ	e Width	Area	Height	Area
# [min]	[min]	[pA*s]	[pA]	%
10 0.000 D1	- 0.0192 0.0345 0.0266 0.0137 0.0120 0.0299 9.84e-3 0.0296 S 0.0149 T 0.0611 T 0.0175	2.30394 6.53195 2.76250 2.04269 1.26177 5.14319 1.29011 7.41828 3.00299e5 13.42662 11.50548	1.67817 2.31306 1.72859 2.27587 1.83836 2.32090 2.02370 3.18267 3.22622e5 2.63459 10.60651	0.00069 0.00196 0.00083 0.00061 0.00038 0.00154 0.00039 0.00222 90.01275 0.00402 0.00345

Instrument 1 7/6/2018 10:41:24 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\091F6001.D Sample Name: 7

Seq. Line : 60 Acq. Operator : Zach Taylor Location : Vial 91 Acq. Instrument : Instrument 1 Injection Date : 28-May-18, 19:45:55 Inj: 1 Inj Volume : 1 µl
 Acq. Method
 : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z5.M

 Last changed
 : 5/28/2018 2:08:29 PM by Zach Taylor
 Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info
 Peak RetTime Type Width
 Area
 Height
 Area

 # [min]
 [min]
 [pA*s]
 [pA]
 %

 ---- ----- ----- ----- ----- 12 1.085 VV T 0.0208 75.34935 61.12591 0.02259 13 1.155 VB S 0.0165 1.62005e4 1.33991e4 4.85600

 13
 1.155
 VB S
 0.0165
 1.62005e4
 1.33991e4
 4.85600

 14
 1.561
 BB
 0.0124
 1.05313
 1.23128
 0.00032

 15
 1.722
 BB
 0.0238
 2.72771
 1.54435
 0.00082

 16
 1.937
 BV
 0.1008
 20.67633
 2.47045
 0.00620

 17
 2.027
 VB
 0.0440
 6.23290
 1.75005
 0.00187

 18
 5.257
 BB
 0.1552
 1.69590e4
 1351.05859
 5.08337

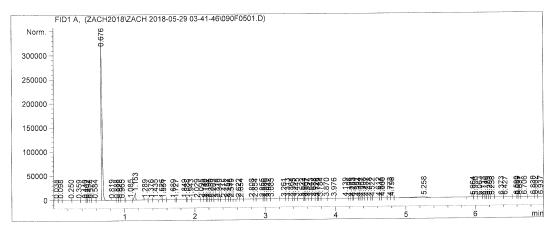
 3.33618e5 3.37470e5 Totals :

*** End of Report ***

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\090F0501.D Sample Name: 7

	= :						
Acq. Operator	:	Zach Taylor	Seq. Line : 5				
Acq. Instrument	:	Instrument 1	Location : Vial 90				
Injection Date	:	29-May-18, 04:06:46	Inj : 1				
-		-	Inj Volume : 1 µl				
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-29 03-41-46\Z5.M				
Last changed	:	5/28/2018 2:08:29 PM by	/ Zach Taylor				
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	M				
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor				
		(modified after loading	3)				
Method Info	:	Alditol lab.					





Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.038	BV	0.0214	4.38435	2.69596	0.00118
2	0.098	vv	0.0282	6.04271	3.01518	0.00163
3	0.250	vv	0.0729	22.60943	4.01685	0.00608
4	0.359	vv	0.0551	26.27705	5.72792	0.00707
5	0.440	vv	0.0370	19.82495	6.53486	0.00533
6	0.467	vv	0.0149	5.20085	5.17726	0.00140
7	0.494	vv	0.0189	8.74737	5.91001	0.00235
8	0.524	vv	0.0169	7.95576	6.08292	0.00214
9	0.584	vv	0.0354	23.52993	8.11035	0.00633
10	0.676	vv s	0.0164	3.33383e5	3.14416e5	89.69768
11	0.819	вv х	0.0132	7.05552	8.92076	0.00190

Instrument 1 7/6/2018 10:41:58 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\090F0501.D Sample Name: 7

Acq. Operator	:	Zach Taylor	Seq. Line : 5		
Acq. Instrument	:	Instrument 1	Location : Vial 90		
Injection Date	:	29-May-18, 04:06:46	Inj: 1		
		_	Inj Volume : 1 µl		
Acq. Method Last changed Analysis Method Last changed	::	C:\Chem32\1\DATA\ZACH2 5/28/2018 2:08:29 PM b C:\CHEM32\1\METHODS\Z4 7/6/2018 9:23:05 PM by (modified after loadin	.M Zach Taylor		
Method Info	:	Alditol lab.	-		

Deelr	RetTime	Tupe	Width	Area	Height	Area
Pear.	[min]	Type	[min]	[pA*s]	[pA]	8
		1				
12	0.888	vv x	0.0154	2.33859	2.53341	0.00063
13	0.928	VV T	0.0171	2,26525	2.20399	0.00061
14	0.965	VV T	0.0245	11.62925	6.14937	0.00313
15	1.085	VV T	0.0214	100.12798	67.24658	0.02694
16	1.153	VB S	0.0189	1.86008e4	1.38628e4	5.00459
17	1.289	BV X	0.0334	4.86290	2.42820	0.00131
1.8	1.376	VV T	0.0272	7.57041	4.64402	0.00204
19	1.435	VB T	0.0353	9.24858	3.44766	0.00249
20	1.526	BV T	8.43e-3	1.00483	1.94361	0.00027
21	1.551	VV T	0.0295	3.76522	2.12711	0.00101
22	1.689	VV T	0.0508	10.95867	2.64047	0.00295
23	1.727	VV T	0.0101	1.46979	2.42179	0.00040
24	1.849	VV T	0.0546	9.74874	2.18075	0.00262
25	1.888	VV T	0.0135	1.65723	2.04415	0.00045
26	1.943	VV T	0.0281	7.35947	3.56539	0.00198
27	2.029	VV T	0.0516	10.73654	2.92464	0.00289
28	2.095	VV T	0.0235	3.29364	2.14511	0.00089
29	2.140		0.0197	4.24557	2.85716	0.00114
30	2.172		0.0115	2.57300	3.62329	0.00069
31	2.196		0.0123	2.04690	2.76804	0.00055
32	2.230		0.0186	4.18531	3.74644	0.00113
33	2.263		0.0150	3.71591	3.45331	0.00100
34	2.319		0.0255	7.07735	3.98916	0.00190
35	2,349		0.0217	4.23252	3.25204	0.00114
36	2.415		0.0292	8.18420	3.91244	0.00220
37	2.457		0.0184	6.11174	4.46552	0.00164
38	2.498		0.0137	2.61798	3.19143	0.00070
39	2.519		0.0138	3.87684	3.71417	0.00104
40	2.622		0.0139	3.78992	3.84127	0.00102
41	2.654		0.0244	4.82328	2.87664	0.00130
42	2,808		0.0534	11.78235	2.83107	0.00317
43	2.854		0.0193	4.14481	. 3.16412	0.00112
44	2.955		0.0332	10.98690	4.06104	0.00296
45			0.0177	3.90572	3.75162	0.00105
46			0.0180	3.94085	3.10731	0.00106
47			0.0231	8.93715	4.86040	0.00240
48			0.0515	19.07083	4.60394	
49			0.0407	9.96470	3.03584	
50			0.0220	7.6233	L 4.54101	
51			0.0290		3.96269	
52			0.0141			
53			0.0287	7.9865		
54			0.0366	13.2996	7 4.53143	0.00358

Instrument 1 7/6/2018 10:41:58 PM Zach Taylor

Page 2 of 4

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\090F0501.D Sample Name: 7

L								
Acq. Operator								
Acq. Instrument		∂ 0						
Injection Date	29-May-18, 04:06:46 Inj : 1							
2	Inj Volume : 1 µl							
	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-4	16\Z5.M						
	5/28/2018 2:08:29 PM by Zach Taylor							
	C:\CHEM32\1\METHODS\Z4.M							
Last changed	7/6/2018 9:23:05 PM by Zach Taylor							
	(modified after loading)							
Method Info	Alditol lab.							

Peak	RetTime	Type	Width	Area	Height	Area
#	[min]		[min]	[pA*s]	[pA]	뫙
55	3.544	vv	0.0116	3.80066	4.42497	0.00102
56	3.567		9.45e-3	2.35549	3.90021	0.00063
57	3.597	vv	0.0163	3.57364	2.83797	0.00096
58	3.643	vv	0.0336	9.55599	3.76817	0.00257
59	3.688	vv	0.0285	7.53818	3.48001	0.00203
60	3.726	vv	0.0176	5.54198	4.49046	0.00149
61	3.745	VV	8.70e-3	2.78644	5.15971	0.00075
62	3.784	vv	0.0227	6.04394	4.33219	0.00163
63	3.870	vv	0.0476	15.55600	4.08884	0.00419
64	3.976	vv	0.0631	22.68066	4.30330	0.00610
65	4.139	vv	0.0871	38.61176	5.27034	0.01039
66	4.196	vv	0.0153	6.59058	5.62727	0.00177
67	4.233	vv	0.0156	6.06147	5.05136	0.00163
68	4.253	vv	0.0116	4.62502	5.89639	0.00124
69	4.307	vv	0.0318	17.93752	6.93036	0.00483
70	4.334	vv	0.0162	6.93558	6.23411	0.00187
71	4.367	vv	0.0190	8.57022	6.30847	0.00231
72	4.398	vv	0.0239	10.76988	6.31966	0.00290
73	4.437	vv	0.0237	13.35573	7.30355	0.00359
74	4.478	vv	0.0265	14.10732	6.60523	0.00380
75	4.522	VV	0.0170	7.65411	6.45292	0.00206
76	4.612	VV	0.0574	32.74407	6.93992	0.00881
77	4.645	VV	0.0273	11.94664	6.66719	0.00321
78	4.666	VV	0.0380	24.00860	7.85739	0.00646
79	4.773	vv	0.0287	12.36399	5.65904	0.00333
80	4.798	VV	0.0218	7.93268	4.76314	0.00213
81	5.258	VB	0.1785	1.87603e4	1289.84155	5.04752
82	5.964	BV	0.0111	2.68370	3.61451	0.00072
83	5.996	VV	0.0225	6.38398	3.70835	0.00172
84	6.063	VV	0.0231	6.17938	3.48123	0.00166
85	6.113	VV	0.0187	4.28084	3.21184	0.00115
86	6.146	vv	0.0129	2.27642	2.53339	0.00061
87	6.175	VV	0.0118	3.57491	5.06237	0.00096
88	6.203	VV	0.0146	5.17786	4.95044	0.00139
89	6.238	VV	0.0240	7.85097	4.57555	0.00211
90	6.373		0.0584	16.35941	3.40734	0.00440
91	6.427		0.0358	17.77122	6.05753	0.00478
92	6.590		0.0351	13.66290	4.87499	0.00368
93	6.609		0.0105	2.66707	3.84362	0.00072
94	6.637		0.0140	4.13625	4.45123	0.00111
95	6.706		0.0392	14.27075	4.52821	0.00384
96	6.830		0.0422	12.98562	3.73513 3.48478	0.00349 0.00121
97	6.862	VV	0.0167	4.49653	3.404/8	0.00121

Instrument 1 7/6/2018 10:41:58 PM Zach Taylor

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Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\090F0501.D Sample Name: 7

Acq. Operator	Zach Taylor	Seq. Line : 5
Acq. Instrument	Instrument 1	Location : Vial 90
Injection Date	29-May-18, 04:06:46	Inj : 1
		Inj Volume : 1 µl
Acq. Method	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-29 03-41-46\Z5.M
Last changed	5/28/2018 2:08:29 PM by	Zach Taylor
Analysis Method	C:\CHEM32\1\METHODS\Z4.	M
Last changed	7/6/2018 9:23:05 PM by	Zach Taylor
	(modified after loading)
Method Info	Alditol lab.	
Peak RetTime Typ	e Width Area He	ight Area
	[min] [pA*s] [p	
	.	
	0.0401 9.61741 2	
Totals :	3.71674e5 3.30	040e5

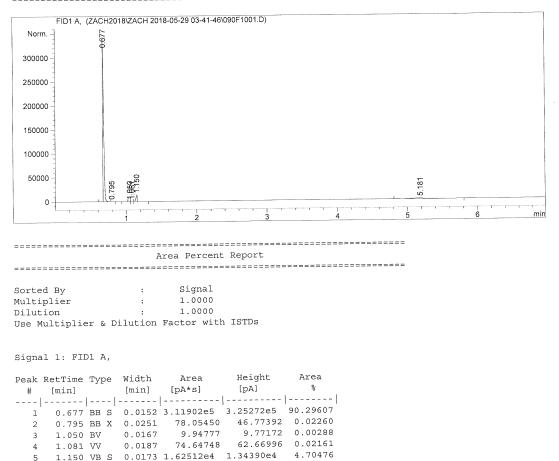
*** End of Report ***

Instrument 1 7/6/2018 10:41:58 PM Zach Taylor

Page 4 of 4

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\090F1001.D Sample Name: 7

	: = :		
Acq. Operator	:	Zach Taylor	Seq. Line : 10
Acq. Instrument	:	Instrument 1	Location : Vial 90
		29-May-18, 04:38:59	Inj: 1
2		-	Inj Volume : 1 µl
Acg. Method	:	C:\Chem32\1\DATA\ZACH20]	L8\ZACH 2018-05-29 03-41-46\Z5.M
Last changed		5/28/2018 2:08:29 PM by	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	1
Last changed	:	7/6/2018 9:23:05 PM by 2	Mach Taylor
5		(modified after loading)	I
Method Info	:	Alditol lab.	



6 5.181 BB 0.1563 1.71055e4 1296.32129 4.95208

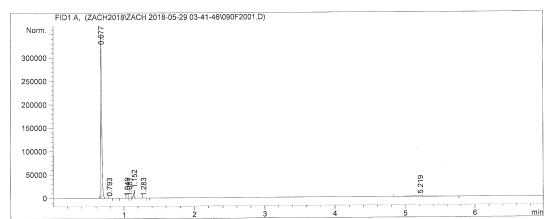
Totals : 3.45421e5 3.40127e5

Instrument 1 7/6/2018 10:42:00 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\090F1501.D
Sample Name: 7
   Seq. Line : 15
   Acq. Operator : Zach Taylor
                                        Location : Vial 90
   Acq. Instrument : Instrument 1
                                            Inj: 1
   Injection Date : 29-May-18, 05:11:10
                                       Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z5.M
   Acq. Method
             : 5/28/2018 2:08:29 PM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
   Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
                (modified after loading)
               : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-29 03-41-46\090F1501.D)
     Norm.
               0.677
    300000
    250000
    200000
    150000
    100000
     50000
                                                         190
                  959
                794
                                                         ò
       0
                                                         min
    Area Percent Report
    Signal
   Sorted By
                    .
                         1.0000
   Multiplier
                    :
                    :
                         1.0000
   Dilution
   Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                 Height
                                         Area
    Peak RetTime Type Width
                        Area
                                          ŝ
                       [pA*s]
                                 [pA]
                  [min]
     #
       [min]
    0.677 BB S 0.0152 3.15654e5 3.29047e5 90.40201
      1
       0.794 BB X 0.0224 43.90421 32.70556 0.01257
1.050 BV 0.0164 10.55790 9.94851 0.00302
      2
         1.050 BV
1.081 VV
      3
                  0.0175 75.42033 65.08657 0.02160
      4
         1.150 VB S 0.0170 1.62739e4 1.37924e4 4.66078
      5
        5.190 BB 0.1554 1.71092e4 1304.90735 4.90001
      6
                       3.49167e5 3.44252e5
    Totals :
    _____
```

Acq. Instrument	:	Instrument 1 Location : Vial 90	
Injection Date	:	29-May-18, 05:43:24 Inj : 1	
		Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z	15.M
Last changed	:	5/28/2018 2:08:29 PM by Zach Taylor	
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor	
		(modified after loading)	
Method Info	:	Alditol lab.	





Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

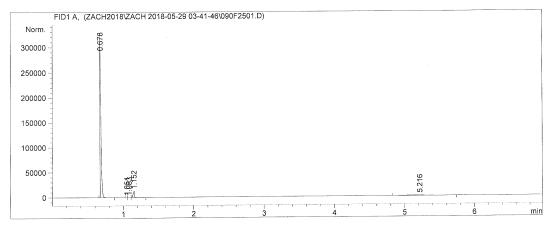
Signal 1: FID1 A,

Peak R #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
-						
1	0.677	BB S	0.0151	3.10114e5	3.25491e5	89.62130
2	0.793	вв Х	0.0209	29.96580	23.88149	0.00866
3	1.049	вv	0.0147	11.77863	12.80087	0.00340
4	1.081	vv	0.0160	83.22356	81.14011	0.02405
5	1.152	VB S	0.0155	1.79733e4	1.70005e4	5.19420
6	1.283	вв х	0.0182	3.39143	2.63552	0.00098
7	5.219	BB	0.1607	1.78114e4	1382.37842	5.14741
Totals	:			3.46027e5	3.43995e5	

Instrument 1 7/6/2018 10:42:06 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\090F2501.D Sample Name: 7

ipic Name. /			
=======================================	= = =		=======================================
Acq. Operator	:	Zach Taylor	Seq. Line : 25
Acq. Instrument	:	Instrument 1	Location : Vial 90
Injection Date	:	29-May-18, 06:15:39	Inj : 1
-		_	Inj Volume : 1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-29 03-41-46\Z5.M
Last changed	:	5/28/2018 2:08:29 PM by	Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.	M
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor
		(modified after loading)
Method Info	:	Alditol lab.	



Area Percent Report _____

Sorted By Signal : 1.0000 Multiplier : Dilution : Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	тур	е	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.678	BB	ຮ່	0.0164	3.06084e5	2.89023e5	89.97950
2	1.051	вv		0.0169	9.29878	8.40222	0.00273
3	1.083	vv		0.0231	77.79779	54.39963	0.02287
4	1.152	VB	s	0.0192	1.66976e4	1.27994e4	4.90859
5	5.216	BB		0.1503	1.73022e4	1364.50647	5.08631
Total	s:				3.40171e5	3.03250e5	

*** End of Report ***

Instrument 1 7/6/2018 10:42:09 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\090F3001.D
Sample Name: 7
   Acq. Operator : Zach Taylor
                                            Seq. Line : 30
                                             Location : Vial 90
   Acq. Instrument : Instrument 1
                                                 Inj: 1
   Injection Date : 29-May-18, 06:47:57
                                           Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z5.M
   Acq. Method
   Last changed
               : 5/28/2018 2:08:29 PM by Zach Taylor
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                  (modified after loading)
   Method Info
                : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-29 03-41-46\090F3001.D)
     Norm.
    300000
     250000
     200000
     150000
     100000
     50000
                    948
                                                                5.202
                    TTA
        0
                                                                                 min
                                                                        6
   Area Percent Report
   Sorted By
                            Signal
                      :
   Multiplier
                            1.0000
                     :
                           1.0000
   Dilution
                      :
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
                           Area
                                    Height
                                              Area
    Peak RetTime Type Width
                         [pA*s]
                                               8
                                    [pA]
     #
        [min]
                    [min]
    0.678 BB S 0.0163 3.02990e5 2.87208e5 90.56093
      1

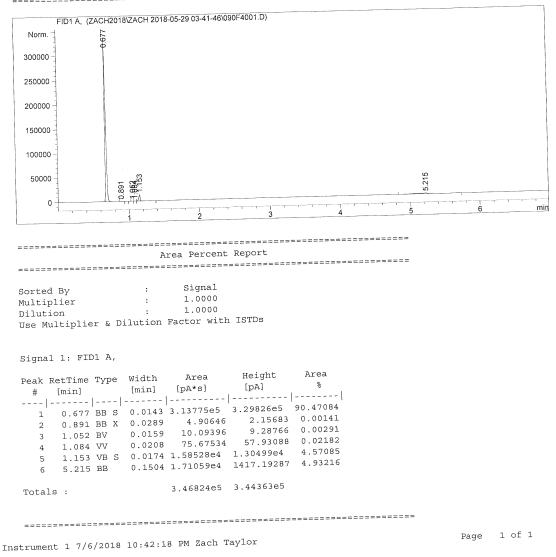
        2
        1.049
        BV
        0.0181
        8.52683
        7.45925
        0.00255

        3
        1.080
        VV
        0.0234
        70.36568
        48.31543
        0.02103

         1.150 VB S 0.0204 1.51471e4 1.13231e4
                                            4.52734
      4
      5 5.202 BB 0.1478 1.63543e4 1319.20630 4.88816
                         3.34571e5 2.99906e5
    Totals :
    *** End of Report ***
                                                                     Page 1 of 1
Instrument 1 7/6/2018 10:42:13 PM Zach Taylor
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\090F4001.D Sample Name: 7

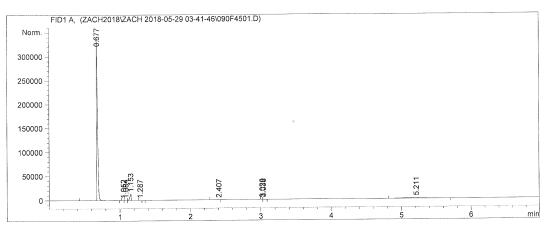
===================		
Acq. Operator Acq. Instrument Injection Date	Instrument 1 Location : Viai 55	
-	INT VOLUME : I PI	
Last changed	<pre>C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z5.M 5/28/2018 2:08:29 PM by Zach Taylor C:\CHEM32\1\METHODS\Z4.M 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)</pre>	
Method Info	: Alditol lab.	



Benzophenone: Sequence #2 – Run #8

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\090F4501.D Sample Name: 7

Acq. Operator	:	Zach Taylor	Seq. Line : 45			
Acq. Instrument	:	Instrument 1	Location : Vial 90			
Injection Date	:	29-May-18, 08:24:46	Inj: 1			
			Inj Volume : 1 µl			
Acq. Method	:	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-05-29 03-41-46\Z5.M			
Last changed	:	5/28/2018 2:08:29 PM	by Zach Taylor			
Analysis Method	:	C:\CHEM32\1\METHODS\2	34.M			
Last changed	:	7/6/2018 9:23:05 PM k	y Zach Taylor			
		(modified after load:	ing)			
Method Info	:	Alditol lab.				



Area Percent Report

Sorted 1	ву		:	Sigr	nal	
Multipl	ier		:	1.00	000	
Dilution	n		:	1.00	000	
Use Mul	ciplier	&	Dilution	Factor	with	ISTDs

Signal 1: FID1 A,

Peak	RetTime	Туре	Width	Area	Height	Area
#	[min]		[min]	[pA*s]	[pA]	8
1	0.677	BB S	0.0155	3.21786e5	3.26702e5	90.42180
2	1.052	BV	0.0166	10.05927	9.43599	0.00283
3	1.084	vv	0.0210	78.19002	59.23218	0.02197
4	1.153	VB S	0.0187	1.65535e4	1.30982e4	4.65151
5	1.287	BB T	0.0146	1.80911	1.73017	0.00051
6	2.407	вv	0.0886	19.13159	2.58919	0.00538
7	3.020	вv	0.0161	1.33803	1.49323	0.00038
8	3.038	VB	0.0184	2.07344	1.44129	0.00058
9	5.211	BB	0.1482	1.74201e4	1449.74182	4.89505

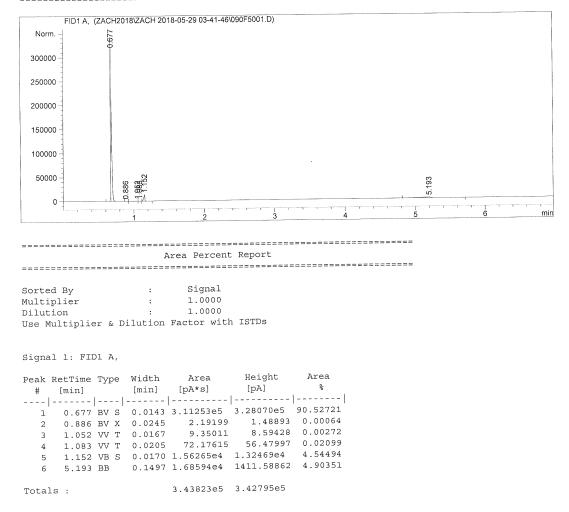
Totals :

3.55873e5 3.41325e5

Instrument 1 7/6/2018 10:42:23 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\090F5001.D Sample Name: 7

upre Mame. /			
	==:		
Acq. Operator	:	Zach Taylor	Seq. Line : 50
Acq. Instrument	:	Instrument 1	Location : Vial 90
Injection Date	:	29-May-18, 08:56:59	Inj: l
5		-	Inj Volume : l µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZAC	CH 2018-05-29 03-41-46\Z5.M
Last changed		5/28/2018 2:08:29 PM by Zach	Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M	
Last changed		7/6/2018 9:23:05 PM by Zach	Faylor
		(modified after loading)	
Method Info	:	Alditol lab.	

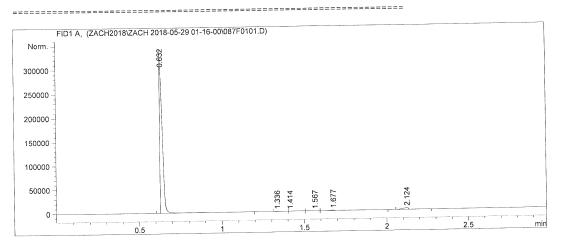


Instrument 1 7/6/2018 10:42:27 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\090F5501.D
Sample Name: 7
    _____
   Acq. Operator : Zach Taylor
                                       Seq. Line : 55
                                         Location : Vial 90
   Acq. Instrument : Instrument 1
   Injection Date : 29-May-18, 09:29:14
                                             Inj: 1
                                        Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z5.M
   Acq. Method
              : 5/28/2018 2:08:29 PM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
              : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                 (modified after loading)
   Method Info
               : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-29 03-41-46\090F5501.D)
     Norm.
               0.677
    300000
    250000
    200000
    150000
    100000
     50000
                                                          180
                 ۍ.
ا
       0
                                                                    min
   _____
                      Area Percent Report
   Sorted By
                    :
                         Signal
   Multiplier
                         1.0000
                   :
                        1.0000
   Dilution
                    :
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
                                 Height
                                          Area
   Peak RetTime Type Width
                         Area
                       [pA*s]
                                 [pA]
                                          00
    # [min]
                 [min]
    0.677 BV S 0.0144 3.02531e5 3.15074e5 90.65747
     1
        0.882 BV X 0.0204 1.91201 1.56117 0.00057
     2
     3
        0.956 VV T 0.0426
                         4.06031
                                  1.58836 0.00122
                        9.28462
        1.051 VV T 0.0167
                                 8.51963 0.00278
     4
        1.082 VV T 0.0205 68.89703
                                 54.05038 0.02065
     5
        1.151 VB S 0.0209 1.48443e4 1.19539e4 4.44831
     6
                        2.07303
                                  1.71555 0.00062
     7
        1.287 BB T 0.0173
                 0.1396 1.62462e4 1389.35437 4.86838
        5.180 BB
     8
                       3.33708e5 3.28485e5
   Totals :
```

Instrument 1 7/6/2018 10:42:31 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\087F0101.D Sample Name: 3-1 Seq. Line : 1 Acq. Operator : Zach Taylor Location : Vial 87 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 01:16:59 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M Acq. Method : 5/28/2018 4:48:16 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak Re	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.632	BB S	0.0192	3.51255e5	3.00507e5	97.01435
2	1.336		0.0235	730.88879	455.79904	0.20187
3	1.414		0.0673	196.23500	35.74316	0.05420
4	1.567		0.0623	155.21074	32.41585	0.04287
5	1.677			2436.74731	794.00226	0.67301
-				7290.92529	3485 64844	2.01371
6	2.124	BB	0.0300	1290.92529	5405.01011	
Totals	;			3.62065e5	3.05310e5	

Instrument 1 7/6/2018 10:43:41 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\087F0401.D
Sample Name: 3-1
   Seq. Line :
                                                 4
   Acq. Operator : Zach Taylor
                                        Location : Vial 87
   Acq. Instrument : Instrument 1
   Injection Date : 29-May-18, 01:28:57
                                           Inj: 1
                                      Inj Volume : 1 µl
              : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M
   Acq. Method
              : 5/28/2018 4:48:16 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
   Last changed
             : 7/6/2018 9:23:05 PM by Zach Taylor
                (modified after loading)
   Method Info
              : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-29 01-16-00\087F0401.D)
     Norm.
                      632
    300000
    250000
    200000
    150000
    100000
     50000
                                                      22
                                            668
                                   207
                                          561
       0
            2.5
                                                                        min
                   0.5
   Area Percent Report
   Sorted By
                         Signal
                   :
                        1.0000
   Multiplier
                   :
                        1.0000
   Dilution
                   •
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
                                Height
   Peak RetTime Type Width
                                        Area
                        Area
    #
       [min]
                 [min]
                       [pA*s]
                                [pA]
                                         8
     0.632 BB S 0.0182 3.48856e5 3.03924e5 97.53467
     1
       1.207 BB X 0.0254 3.72390
                               2.44174 0.00104
     2
        1.334 BB
                 0.0220 442.70959 301.05984 0.12377
     3
       1.561 BV
                                6.94186 0.00746
                 0.0536 26.67195
     4
                0.0378 1567.86633 597.27740 0.43835
0.0278 6776.86670 3327.88623 1.89471
       1.668 VB
     5
     6
        2.122 BB
                      3.57674e5 3.08159e5
   Totals :
```

Instrument 1 7/6/2018 10:43:43 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\087F0701.D Sample Name: 3-1 7 Seq. Line : Acq. Operator : Zach Taylor Location : Vial 87 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 01:40:56 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M Acq. Method : 5/28/2018 4:48:16 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-29 01-16-00\087F0701.D) Norm. 0.632 300000 250000 200000 150000 100000 50000 120 665 335 003 209 561 à 0 -----------2.5 Т min 0.5 Area Percent Report Signal Sorted By : Multiplier : 1.0000 1.0000 : Dilution Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Area Peak RetTime Type Width Area Height [pA] 8 [pA*s] # [min] [min] 0.632 BB S 0.0194 3.65206e5 3.08803e5 97.75831 1 1.003 BB X0.01302.906423.725330.000781.209 BB0.02044.028782.857410.00108 2
 1.209 BB
 0.0204
 4.02878
 2.05711
 0.10273

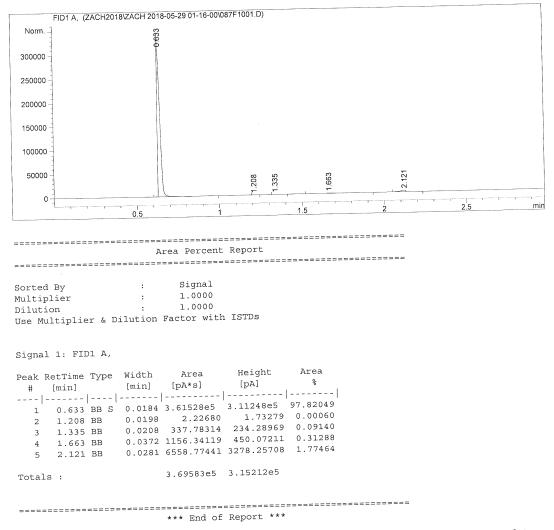
 1.335 BB
 0.0210
 383.76614
 263.57114
 0.10273

 5.50250
 0.00552
 3 4 5.50250 0.00552 1.561 BV 0.0517 20.62983 5 0.0380 1339.06055 520.54871 0.35844 1.665 VB 6 2.120 BB 0.0307 6624.13965 3290.91772 1.77315 7 3.73580e5 3.12890e5 Totals :

Instrument 1 7/6/2018 10:43:45 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\087F1001.D

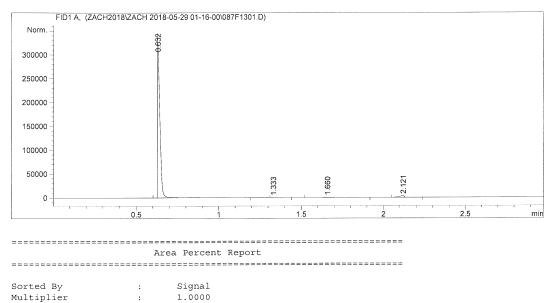
Acq. Operator	: Zach Taylor	Seq. Line : 10
Acq. Instrument		Location : Vial 87
Injection Date	: 29-May-18, 01:52:53	Inj: 1
		Inj Volume : 1 µl
Last changed Analysis Method	<pre>: C:\Chem32\1\DATA\ZACH201 : 5/28/2018 4:48:16 AM by : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by 2 (modified after loading)</pre>	1 Zach Taylor
Method Info	: Alditol lab.	



Instrument 1 7/6/2018 10:43:47 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\087F1301.D Sample Name: 3-1 Acq. Operator : Zach Taylor Seq. Line : 13 Location : Vial 87 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 02:04:52 Inj: 1 Inj Volume : 1 µl Acq. Method : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M

Last changed	:	5/28/2018 4:48:16 AM by Zach Taylor
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor
		(modified after loading)
Method Info	:	Alditol lab.



Signal 1: FID1 A,

Dilution

Peak R #	etTime [min]	Туре ,	Width [min]	Area [pA*s]	Height [pA]	Area %	
-				2 27506-5	3.01878e5	97.60171	
T	0.632	BB S		3.37586e5			
2	1.333	BB	0.0222	353.59439	226.33034	0.10223	
3	1.660	BB	0.0368	1067.91504	421.41678	0.30875	
4	2.121	BB	0.0287	6873.73828	3354.99463	1.98731	
Totals	:			3.45881e5	3.05881e5		
	======				=================		==========

1.0000

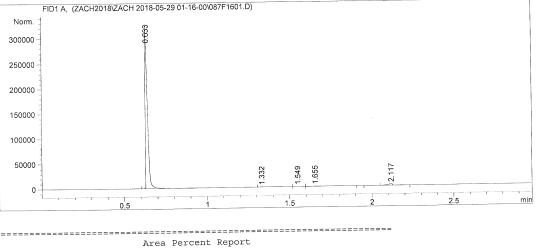
. Use Multiplier & Dilution Factor with ISTDs

*** End of Report ***

Instrument 1 7/6/2018 10:43:49 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\087F1601.D Sample Name: 3-1 Seq. Line : 16 Acq. Operator : Zach Taylor Location : Vial 87 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 02:16:50 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M Acq. Method : 5/28/2018 4:48:16 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.





Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Туре	e Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.633	BBS	3 0.0149	2.87652e5	2.86573e5	97.64258
2	1.332	BV 2	¢ 0.0250	342.82712	190.14391	0.11637
3	1.549	WV X	x 0.0566	41.99278	9.45212	0.01425
4	1.655			857.38660	331.58325	0.29104
5				5702.68018	2955.21484	1.93576

Totals :

2.94596e5 2.90060e5

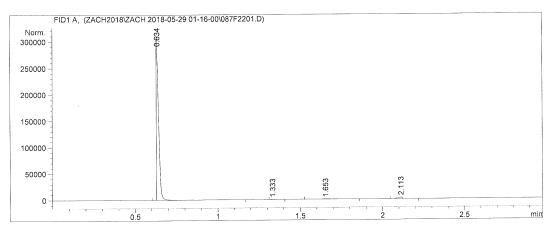
*** End of Report ***

Instrument 1 7/6/2018 10:43:52 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\087F1901.D
   _____
Sample Name: 3-1
                                       Seq. Line : 19
   Acq. Operator : Zach Taylor
                                       Location : Vial 87
   Acq. Instrument : Instrument 1
                                           Inj: 1
   Injection Date : 29-May-18, 02:28:49
                                      Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M
   Acq. Method
              : 5/28/2018 4:48:16 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
              : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                (modified after loading)
               : Alditol lab.
   Method Info
   _____
         FID1 A, (ZACH2018\ZACH 2018-05-29 01-16-00\087F1901.D)
                      0.634
     Norm.
     300000
     250000
     200000
     150000
     100000
                                                       2.115
      50000
                                      333
                                             654
                                                                  ·····
        0 -
                                                               2.5
                                                                         min
                                 ···· ···· ··· ···
            1.5
                    0.5
    Area Percent Report
    Signal
                     .
    Sorted By
                          1.0000
                     :
    Multiplier
                          1.0000
                    :
    Dilution
    Use Multiplier & Dilution Factor with ISTDs
     Signal 1: FID1 A,
                                          Area
                                  Height
     Peak RetTime Type Width
                          Area
                                           ŝ
                                  [pA]
                        [pA*s]
                   [min]
         [min]
     0.634 BB S 0.0152 2.79724e5 2.90204e5 97.88178
       2 1.333 BB 0.0199 214.28630 156.84534 0.07498
                   0.0358 662.16370 270.39526 0.23171
          1.654 BB
                 0.0285 5176.94727 2731.89868 1.81153
       3
         2.115 BB
       4
                         2.85777e5 2.93363e5
     Totals :
     *** End of Report ***
                                                               Page 1 of 1
  Instrument 1 7/6/2018 10:43:56 PM Zach Taylor
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\087F2201.D Sample Name: 3-1

Acq. Operator	Zach Taylo	r s	Seq. Line	: 22
Acq. Instrument	Instrument	1	Location	: Vial 87
Injection Date	29-May-18,		2	: 1
			nj Volume	
Acq. Method	C:\Chem32\	1\DATA\ZACH2018\ZACH :	2018-05-29	01-16-00\Z2.M
Last changed	5/28/2018	4:48:16 AM by Zach Tay	vlor	
Analysis Method	C:\CHEM32\	1\METHODS\Z4.M		
Last changed	7/6/2018 9	:23:05 PM by Zach Tay	lor	
	(modified	after loading)		
Method Info	Alditol la	b.		



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

	[min]		[min]	Area [pA*s]	Height [pA]	Area %
1	0.634			2.84854e5		98.03290
2	1.333	BB	0.0218	192.16974	131.98390	0.06614
3	1.653	BB	0.0350	572.81891	233.27696	0.19714
4	2.113	BB	0.0273	4950.81299	2665.30151	1.70383
metel a				2 9057095	2 9275465	

Totals :

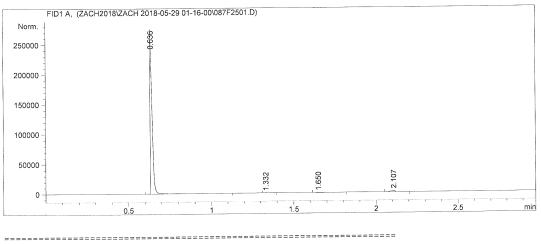
2.90570e5 2.92754e5

*** End of Report ***

Instrument 1 7/6/2018 10:43:58 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\087F2501.D Sample Name: 3-1

:	Zach Taylor	Seq. Line : 25			
:	Instrument 1	Location : Vial 87			
:	29-May-18, 02:52:42	Inj : 1			
		Inj Volume : l µl			
:	C:\Chem32\1\DATA\ZACH	H2018\ZACH 2018-05-29 01-16-00\Z2.M			
:	5/28/2018 4:48:16 AM	by Zach Taylor			
:	C:\CHEM32\1\METHODS\2	Z4.M			
:	7/6/2018 9:23:05 PM }	oy Zach Taylor			
	(modified after load:	ing)			
:	Alditol lab.				
	:::::::::::::::::::::::::::::::::::::::	<pre>: Zach Taylor : Instrument 1 : 29-May-18, 02:52:42 : C:\Chem32\1\DATA\ZACH : 5/28/2018 4:48:16 AM : C:\CHEM32\1\METHODS\' : 7/6/2018 9:23:05 PM 1 (modified after load: : Alditol lab.</pre>			



Area Percent Report

Sorted By		:	Sigr	nal	
Multiplier		:	1.00	000	
Dilution		:	1.00	000	
Use Multiplier	&	Dilution	Factor	with	ISTDs

Signal 1: FID1 A,

Peak R #	etTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1 2 3 4	0.636 1.332 1.650 2.107	BB	0.0201 0.0336	2.21230e5 138.32327 396.65720 3797.08423	2.39087e5 100.21558 169.92235 2193.08374	98.07944 0.06132 0.17585 1.68338
Totals	:			2.25563e5	2.41551e5	

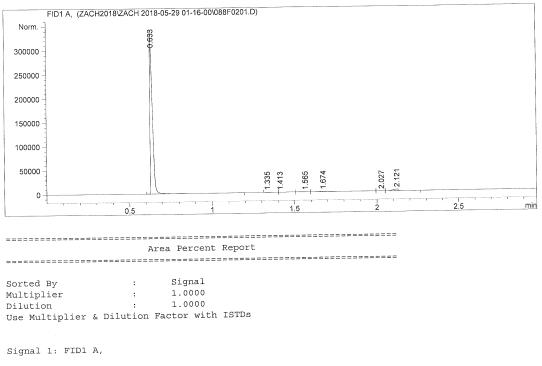
*** End of Report ***

Instrument 1 7/6/2018 10:44:02 PM Zach Taylor

Instrument 1 7/6/2018 10:44:05 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\087F2801.D
Sample Name: 3-1
   Seq. Line : 28
  Acq. Operator : Zach Taylor
                                       Location : Vial 87
  Acq. Instrument : Instrument 1
                                           Inj :
                                                 1
   Injection Date : 29-May-18, 03:04:40
                                      Inj Volume : 1 µl
              : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M
   Acq. Method
             : 5/28/2018 4:48:16 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
   Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
                (modified after loading)
              : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-29 01-16-00\087F2801.D)
     Norm.
                      9.633
    300000
    250000
    200000
    150000
     100000
     50000
                                   209
                                     336
                                             657
       0
                                                                  2.5
                                                                        min
                      0.5
                                         1.5
   Area Percent Report
   Signal
   Sorted By
                    :
                       1.0000
   Multiplier
                    :
                   :
                         1.0000
   Dilution
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
                                         Area
                                 Height
    Peak RetTime Type Width
                         Area
                                          8
                                [pA]
                  [min] [pA*s]
     #
        [min]
    1 0.633 BB S 0.0196 3.65131e5 3.05251e5 98.05805
2 1.209 BB X 0.0258 2.49507 1.61140 0.00067
      1
         1.336 BB 0.0280 297.83307 150.00613 0.07998
      3
                 0.0398 702.84607 251.48163 0.18875
        1.657 BB
      4
                  0.0291 6227.89258 3097.03809 1.67254
        2.119 BB
      5
                       3.72362e5 3.08751e5
    Totals :
   _____
                        *** End of Report ***
                                                              Page 1 of 1
```

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\088F0201.D
Sample Name: 3-2
   _____
                                        Seq. Line :
                                                   2
   Acq. Operator : Zach Taylor
                                         Location : Vial 88
   Acq. Instrument : Instrument 1
   Injection Date : 29-May-18, 01:20:58
                                             Inj: 1
                                        Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M
   Acq. Method
              : 5/28/2018 4:48:16 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
              : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                 (modified after loading)
   Method Info
               : Alditol lab.
   _____
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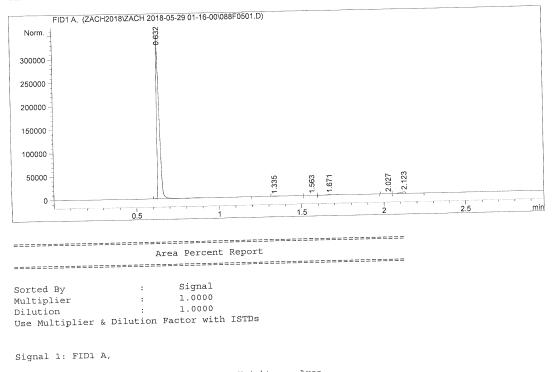


Peak Re	tTime	Type	Width	Area	Height	Area
	min]		[min]	[pA*s]	[pA]	8
1	0.633	'bb S'	0.0179	3.38206e5	3.00822e5	97.09199
2	1.335	BV	0.0236	671.67047	416.11459	0.19282
3	1.413	vv	0.0681	185.00122	33.64618	0.05311
4	1.565	vv	0.0673	154.84901	30.90559	0.04445
5	1.674	vv	0.0455	2288.58276	743.29028	0.65700
6	2.027	VV	0.0273	50.22229	28.04655	0.01442
7	2.121	VB	0.0278	6779.31934	3323.49585	1.94620
Totals	:			3.48336e5	3.05398e5	

Instrument 1 7/6/2018 10:44:09 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\088F0501.D Sample Name: 3-2

ple Name: 3-2	
Acq. Instrument	: Zach Taylor Seq. Line : 5 : Instrument 1 Location : Vial 88 : 29-May-18, 01:32:57 Inj : 1 Inj Volume : 1 µl
Acq. Method Last changed Analysis Method Last changed Method Info	<pre>: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M : 5/28/2018 4:48:16 AM by Zach Taylor : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab.</pre>



Peak Re	tTime	Type	Width	Area	Height	Area
		- 1 -	[min]	[pA*s]	[Aq]	응
# [min]		[[[[]]]]	[bv.p]	rT1	
1	0.632	BB S	0.0170	3.57439e5	3.42250e5	97.32556
	1.335		0.0272	712.88654	358.58469	0.19411
			0.0647	114,92760	24.67886	0.03129
-	1.563				661,55365	0.51868
4	1.671	VB	0.0400	1904.92322		
5	2.027	BV	0.0262	43.40149	25.62808	0.01182
-			0 0205	7046.03223	3465.06104	1.91853
6	2.123	VВ	0.0205	/040.05225		
Totals				3.67261e5	3.46785e5	
TOLATE	•					

Instrument 1 7/6/2018 10:44:11 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\088F0801.D Sample Name: 3-2 Acq. Operator : Zach Taylor Seq. Line : 8 Acq. Instrument : Instrument 1 Location : Vial 88 Inj: 1 Injection Date : 29-May-18, 01:44:56 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M Acq. Method Last changed : 5/28/2018 4:48:16 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. FID1 A, (ZACH2018\ZACH 2018-05-29 01-16-00\088F0801.D) Norm. 0.633 300000 250000 200000 150000 100000 50000 2.027 .208 335 667 0 1.5 2.5 0.5 Area Percent Report _____ Sorted By Signal : Multiplier : 1.0000 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Area Peak RetTime Type Width Height Area [pA*s] [pA] Ŷ # [min] [min] 0.633 BB S 0.0182 3.51765e5 3.06020e5 97.47897 1 0.0203 2.65372 1.90483 0.00074 1.208 BB 2 0.0284 606.69574 300.52014 0.16812 1.335 BB 3 0.0426 1701.86743 574.61273 0.47161 1.667 BB 4 2.027 BV 0.0251 34.86682 21.74498 0.00966 5 0.0276 6751.37451 3339.68823 1.87090 6 2.121 VB

Totals :

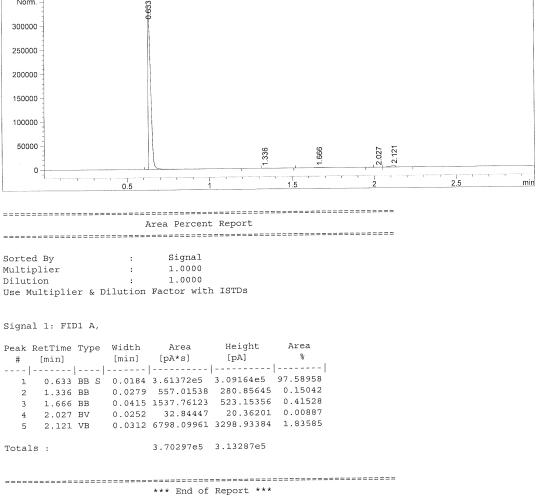
3.60862e5 3.10258e5

Instrument 1 7/6/2018 10:44:13 PM Zach Taylor

Page 1 of 1

min

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\088F1101.D Sample Name: 3-2 Acq. Operator : Zach Taylor Seq. Line : 11 Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 29-May-18, 01:56:54 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M Acq. Method Last changed : 5/28/2018 4:48:16 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info FID1 A. (ZACH2018\ZACH 2018-05-29 01-16-00\088F1101.D) Norm.



Instrument 1 7/6/2018 10:44:15 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\088F1401.D
Sample Name: 3-2
   Seq. Line : 14
   Acq. Operator : Zach Taylor
                                             Location : Vial 88
   Acq. Instrument : Instrument 1
                                                 Inj: 1
   Injection Date : 29-May-18, 02:08:51
                                           Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M
   Acq. Method
               : 5/28/2018 4:48:16 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                  (modified after loading)
                 : Alditol lab.
   Method Info
    FID1 A, (ZACH2018\ZACH 2018-05-29 01-16-00\088F1401.D)
      Norm.
                         0.633
     300000
     250000
     200000
      150000 -
      100000
      50000
                                                            2.027
                                           335
                                                   664
         0 -
                                                                   2.5
                                                                                  min
            0.5
                                               1.5
    Area Percent Report
    Signal
                       :
    Sorted By
                             1.0000
    Multiplier
                       :
                             1.0000
                       :
    Dilution
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                      Height
                                              Area
     Peak RetTime Type Width
                            Area
                                               8
                     [min] [pA*s]
                                     [pA]
         [min]
      #
      _ _ _ _ _ _
          0.633 BB S 0.0182 3.56470e5 3.09471e5 97.62021
       1

        2
        1.335
        BB
        0.0267
        513.68048
        264.33282
        0.14067

        3
        1.664
        BB
        0.0410
        1375.61047
        475.30164
        0.37671

                    0.0251 31.06654 19.36884 0.00851
          2.027 BV
       4
                    0.0302 6769.67773 3317.53833 1.85389
       5 2.121 VB
                           3.65160e5 3.13547e5
     Totals :
     _____
                           *** End of Report ***
```

Instrument 1 7/6/2018 10:44:16 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\088F1701.D
Sample Name: 3-2
   Seq. Line : 17
   Acq. Operator : Zach Taylor
                                             Location : Vial 88
   Acq. Instrument : Instrument 1
   Injection Date : 29-May-18, 02:20:48
                                                 Inj: 1
                                           Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M
   Acq. Method
   Last changed
               : 5/28/2018 4:48:16 AM by Zach Taylor
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                  (modified after loading)
   Method Info
                : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-29 01-16-00\088F1701.D)
     Norm.
                         633
     300000
     250000
     200000
     150000
     100000
     50000
                                                             2.120
                                                           2.026
                                                  662
                                          335
        0
                                                                                 min
                                                                      2.5
                     0.5
   Area Percent Report
   Sorted By
                            Signal
                      :
   Multiplier
                      :
                            1.0000
                            1.0000
   Dilution
                      :
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
                           Area
                                    Height
                                             Area
    Peak RetTime Type Width
                                               2
                         [pA*s]
                                    [pA]
     #
        [min]
                   [min]
    0.633 BB S 0.0182 3.50325e5 3.04879e5 97.66627
      1

        1.335
        BB
        0.0278
        481.43481
        244.65775
        0.13422

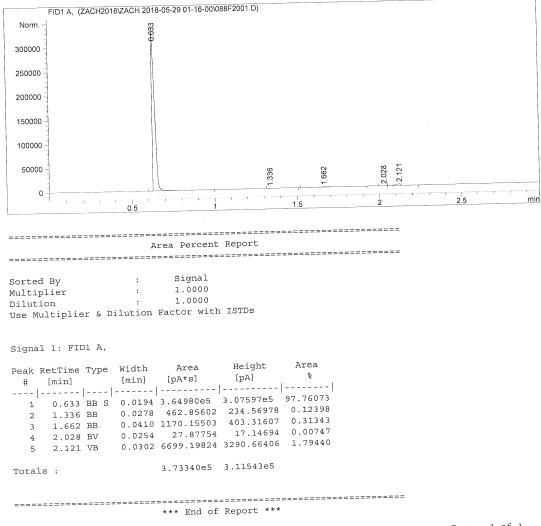
        1.662
        BB
        0.0407
        1243.65454
        432.96646
        0.34672

      2
      3
         2.026 BV 0.0252 28.93229 17.92442 0.00807
      4
         2.120 VB
                  0.0297 6616.96924 3318.09180 1.84473
      5
                         3.58696e5 3.08893e5
    Totals :
    *** End of Report ***
                                                                     Page 1 of 1
Instrument 1 7/6/2018 10:44:20 PM Zach Taylor
```

Ethyl Acetoacetate: Sequence #2 – Run #7

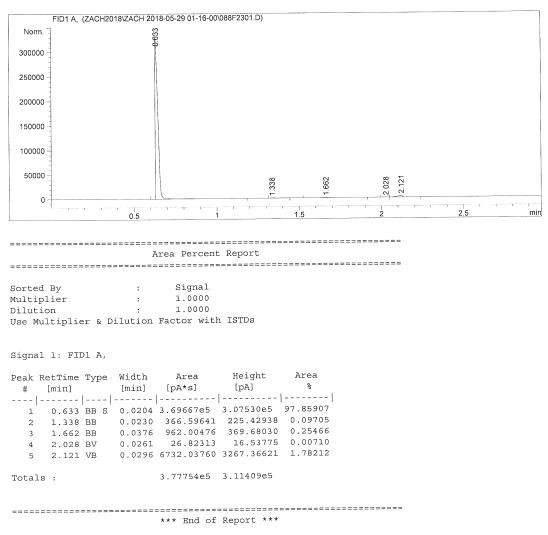
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\088F2001.D Sample Name: 3-2

ipic Name: 5 2		
-	Instrument 1 29-May-18, 02:32:49	Seq. Line : 20 Location : Vial 88 Inj : 1 Inj Volume : 1 µl
Last changed	C:\Chem32\1\DATA\ZACH20 5/28/2018 4:48:16 AM by C:\CHEM32\1\METHODS\Z4 7/6/2018 9:23:05 PM by (modified after loading	.M Zach Taylor
Method Info	Alditol lab.	



Instrument 1 7/6/2018 10:44:22 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\088F2301.D Sample Name: 3-2 Acq. Operator : Zach Taylor Seq. Line : 23 Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 29-May-18, 02:44:45 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M Acq. Method : 5/28/2018 4:48:16 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info

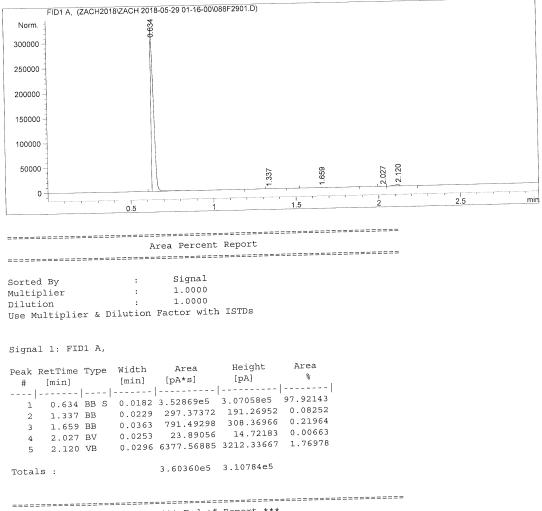


Instrument 1 7/6/2018 10:44:24 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\088F2601.D Sample Name: 3-2 Acq. Operator : Zach Taylor Seq. Line : 26 Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 29-May-18, 02:56:42 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M Acq. Method : 5/28/2018 4:48:16 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-29 01-16-00\088F2601.D) Norm. 333 300000 250000 200000 150000 100000 50000 2.027 2.121 337 660 0 -2.5 min 0.5 1.5 Area Percent Report Signal Sorted By : 1.0000 Multiplier : 1.0000 Dilution . Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area [pA] Ŷ # [min] [min] [pA*s] 0.633 BB S 0.0175 3.56878e5 3.07757e5 97.78854 1 2 1.337 BB 0.0278 413.93091 210.13127 0.11342 0.0408 994.15125 345.66849 0.27241 1.660 BB 3 0.0253 25.56818 15.78189 0.00701 2.027 BV 4 0.0309 6637.04980 3267.42529 1.81863 5 2.121 VB 3.64948e5 3.11596e5 Totals : _____ ______ *** End of Report ***

Instrument 1 7/6/2018 10:44:29 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\088F2901.D Sample Name: 3-2 Seq. Line : 29 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 29-May-18, 03:08:38 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M Acq. Method : 5/28/2018 4:48:16 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info



*** End of Report ***

Instrument 1 7/6/2018 10:44:31 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\089F0301.D
Sample Name: 3-3
   Seq. Line : 3
   Acg. Operator : Zach Taylor
                                             Location : Vial 89
   Acq. Instrument : Instrument 1
                                                  Inj: 1
   Injection Date : 29-May-18, 01:24:57
                                            Inj Volume : 1 µl
                 : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M
   Acq. Method
                : 5/28/2018 4:48:16 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                   (modified after loading)
                 : Alditol lab.
   Method Info
    FID1 A, (ZACH2018\ZACH 2018-05-29 01-16-00\089F0301.D)
      Norm.
                          632
     300000
     250000
     200000
     150000
     100000
                                                                123
      50000
                                            336
414
                                                    677
                                                                           0
                                                                         2.5
                                                                                   min
             0.5
                                                1.5
     _____
                          Area Percent Report
     _____
                             Signal
     Sorted By
                        .
                            1.0000
     Multiplier
                       :
                             1.0000
     Dilution
     Use Multiplier & Dilution Factor with ISTDs
     Signal 1: FID1 A,
                                                Area
                                      Height
     Peak RetTime Type Width
                             Area
                                                %
                                      [pA]
                           [pA*s]
                     [min]
      #
          [min]
      0.632 BB S 0.0183 3.55551e5 3.07944e5 97.08306

        1.336
        BV
        0.0236
        721.81512
        447.78714
        0.19709

        1.414
        VV
        0.0682
        196.72322
        35.31287
        0.05372

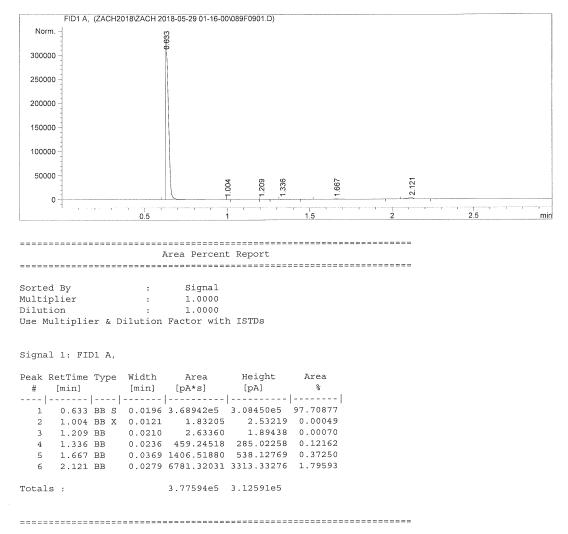
       1
       2
       3
                     0.0618 147.05771 32.40064 0.04015
0.0430 2445.22095 778.83911 0.66767
          1.566 VV
       4
          1.677 VB
       5
                    0.0305 7171.99219 3477.39087 1.95831
        6
           2.123 BB
                           3.66233e5 3.12715e5
     Totals :
     Page 1 of 1
  Instrument 1 7/6/2018 10:44:53 PM Zach Taylor
```

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\089F0601.D
Sample Name: 3-3
   Acq. Operator : Zach Taylor
                                      Seq. Line : 6
                                       Location : Vial 89
  Acq. Instrument : Instrument 1
                                           Inj: 1
  Injection Date : 29-May-18, 01:36:56
                                      Inj Volume : 1 µl
              : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M
  Acq. Method
  Last changed
              : 5/28/2018 4:48:16 AM by Zach Taylor
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
             : 7/6/2018 9:23:05 PM by Zach Taylor
  Last changed
                (modified after loading)
  Method Info
              : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-29 01-16-00\089F0601.D)
     Norm.
                      633
    300000
    250000
    200000
    150000
    100000
     50000
                                                      122
                                            .670
                                  208
                                          562
                                                      N
       0
            2.5
                                                                       min
                  0.5
   Area Percent Report
   Sorted By
                        Signal
                   :
   Multiplier
                   :
                        1.0000
   Dilution
                        1.0000
                   :
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
   Peak RetTime Type Width
                        Area
                                Height
                                        Area
                       [pA*s]
                                         ŝ
                                [pA]
    # [min]
                 [min]
   0.632 BB S 0.0184 3.63999e5 3.11310e5 97.59271
     1
       1.208 BB X 0.0259 4.75657
                               2.62568 0.00128
     2
                 0.0207 462.19229 322.51913 0.12392
        1.335 BB
     3
                                7.27196 0.00723
                 0.0513 26.96079
        1.562 BV
     4
        1.670 VB
                 0.0387 1617.42090 615.33057 0.43365
     5
                 0.0297 6867.32568 3318.24707 1.84122
       2.122 BB
     6
                      3.72978e5 3.15576e5
   Totals :
   _____
```

Instrument 1 7/6/2018 10:44:55 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\089F0901.D Sample Name: 3-3

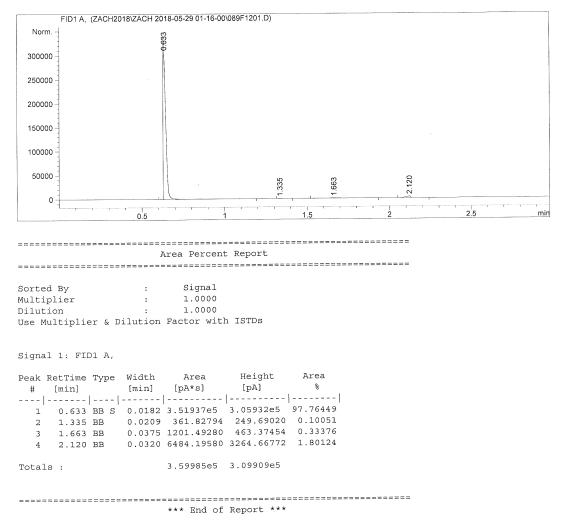
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Acq. Ope	erator :	Zach Taylor	Seq. Line	: 9
Acq. Ins	strument :	Instrument 1	Location	: Vial 89
Injectio	on Date :	29-May-18, 01:48:53	Inj	: 1
			Inj Volume	: 1 µl
Acq. Met	hod :	C:\Chem32\1\DATA\ZACH2	2018\ZACH 2018-05-29	01-16-00\Z2.M
Last cha	inged :	5/28/2018 4:48:16 AM k	y Zach Taylor	
Analysis	Method :	C:\CHEM32\1\METHODS\Z4	. M	
Last cha	inged :	7/6/2018 9:23:05 PM by	7 Zach Taylor	
		(modified after loadin	ıg)	
Method I	info :	Alditol lab.		



Instrument 1 7/6/2018 10:44:57 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\089F1201.D Sample Name: 3-3

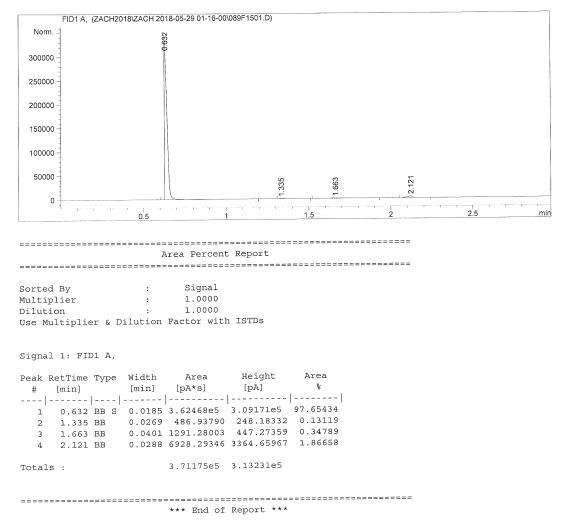
Acq. Operator : Zach Taylor Seq. Line : 12 Location : Vial 89 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 02:00:54 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M Acq. Method Last changed : 5/28/2018 4:48:16 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Instrument 1 7/6/2018 10:44:58 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\089F1501.D Sample Name: 3-3

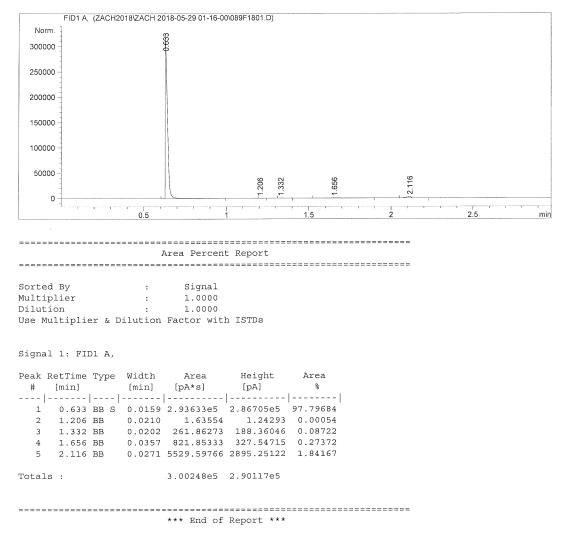
Seq. Line : 15 Acq. Operator : Zach Taylor Location : Vial 89 Acq. Instrument : Instrument 1 Injection Date : 29-May-18, 02:12:50 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M Acq. Method : 5/28/2018 4:48:16 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info



Instrument 1 7/6/2018 10:45:00 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\089F1801.D Sample Name: 3-3

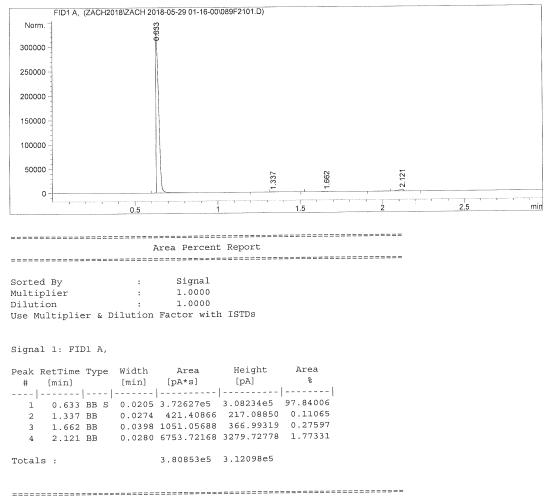
	= =			==:	
Acq. Operator	:	Zach Taylor	Seq. Line	:	18
Acq. Instrument	:	Instrument 1	Location	:	Vial 89
Injection Date	:	29-May-18, 02:24:51	Inj	:	1
			Inj Volume	:	1 µl
Acq. Method	:	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-05-2	9	01-16-00\Z2.M
Last changed	:	5/28/2018 4:48:16 AM	by Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\2	24.M		
Last changed	:	7/6/2018 9:23:05 PM b	oy Zach Taylor		
		(modified after load:	ing)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 10:45:04 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\089F2101.D Sample Name: 3-3

Acq. Operator : Zach Taylor Seq. Line : 21 Acq. Instrument : Instrument 1 Location : Vial 89 Injection Date : 29-May-18, 02:36:48 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M Acq. Method : 5/28/2018 4:48:16 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.

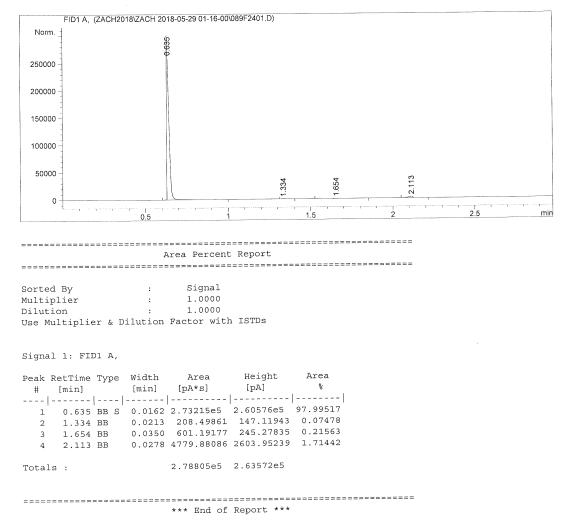


*** End of Report ***

Instrument 1 7/6/2018 10:45:06 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\089F2401.D Sample Name: 3-3

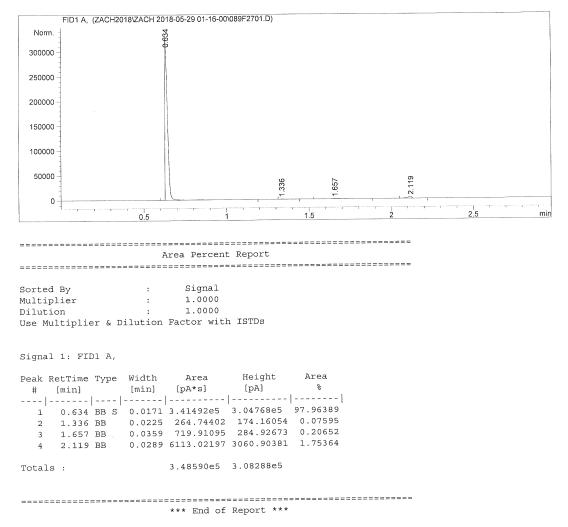
Acq. Operator	: Zach Taylor	Seq. Line : 24		
Acq. Instrument	: Instrument 1	Location : Vial 89		
Injection Date	: 29-May-18, 02:48:44	Inj : 1		
		Inj Volume : 1 µl		
Acq. Method	: C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-29 01-16-00\Z2.M		
Last changed	: 5/28/2018 4:48:16 AM by	Zach Taylor		
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M			
Last changed	: 7/6/2018 9:23:05 PM by Z	ach Taylor		
	(modified after loading)			
Method Info	: Alditol lab.			



/Instrument 1 7/6/2018 10:45:10 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\089F2701.D Sample Name: 3-3

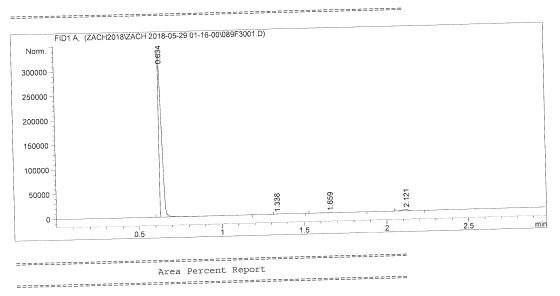
Acq. Operator	: Zach Taylor	Seq. Line : 27
Acq. Instrument	: Instrument 1	Location : Vial 89
Injection Date	: 29-May-18, 03:00:40	Inj: 1
2		Inj Volume : 1 µl
Acq. Method	: C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-29 01-16-00\Z2.M
Last changed	: 5/28/2018 4:48:16 AM by	Zach Taylor
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M	
Last changed	: 7/6/2018 9:23:05 PM by Z	ach Taylor
	(modified after loading)	
Method Info	: Alditol lab.	



Instrument 1 7/6/2018 10:45:11 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\089F3001.D Sample Name: 3-3

ple Name: 3-3	
Acq. Instrument	: Zach Taylor Seq. Line : 30 : Instrument 1 Location : Vial 89 : 29-May-18, 03:12:38 Inj : 1 Inj Volume : 1 µl
Acq. Method Last changed Analysis Method Last changed	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 01-16-00\Z2.M : 5/28/2018 4:48:16 AM by Zach Taylor
Method Info	: Alditol lab.



Signal Sorted By : 1.0000 Multiplier : 1.0000 : Dilution Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

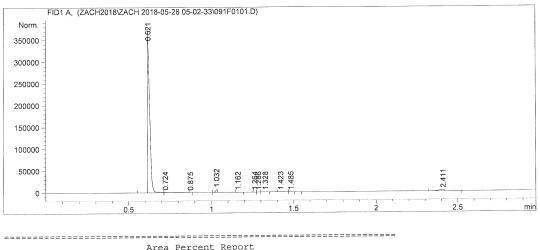
Area Height Peak RetTime Type Width Area [pA] 8 [pA*s] [min] 0.634 BB S 0.0196 3.69263e5 3.08076e5 97.95133 1 0.0273 349.77963 175.07471 0.09278 0.0404 811.11511 285.29547 0.21516 1.338 BB 2 1.659 BB 3 0.0319 6562.32129 3201.85083 1.74073 2.121 BB 4 3.76986e5 3.11738e5 Totals :

*** End of Report ***

Instrument 1 7/6/2018 10:45:14 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\091F0101.D Sample Name: 6

Acq. Operator	:	Zach Taylor	Seq. Line : 1						
Acq. Instrument	:	Instrument 1	Location : Vial 91						
Injection Date	:	28-May-18, 05:03:35	Inj : 1						
-			Inj Volume : 1 µl						
Acq. Method	:	C:\Chem32\1\DATA\ZACH2	018\ZACH 2018-05-28 05-02-33\Z1.M						
Last changed	:	5/28/2018 4:40:53 AM b	7 Zach Taylor						
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	. М						
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor						
		(modified after loading	3)						
Method Info	:	Alditol lab.							



Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

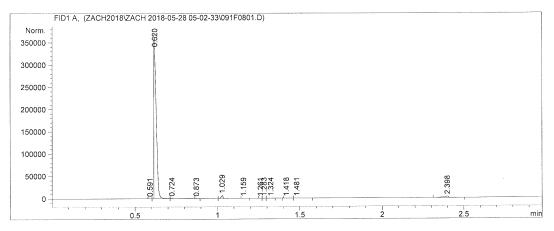
Signal 1: FID1 A,

Height Area Peak RetTime Type Width Area [pA] 양 [pA*s] # [min] [min] 0.621 BV S 0.0153 3.33241e5 3.43904e5 95.55977 1 0.724 VV S 0.0530 2794.46362 878.39258 0.80134 2 0.875 BB X 8.80e-3 9.78586 17.82619 0.00281 3 1.032 VB S 0.0128 5713.48047 6951.38135 1.63839 4 32.32234 0.00705 5 1.162 BB X 0.0121 24.56829 2.30847 0.00049 1.264 BV X 0.0123 1.70391 6 6.13508 0.00187 1.286 VV X 0.0164 6.53496 1.328 VB X 0.0160 33.60059 30.57508 0.00964 8 1.423 BV X 0.0171 21.32366 19.03395 0.00611 9 2.28306 2.37313 0.00065 1.485 VB X 0.0152 10 0.0329 6876.45313 2858.74756 1.97189 11 2.411 BB

Instrument 1 7/6/2018 10:48:40 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\091F0801.D Sample Name: 6

Acq. Operator	:	Zach Taylor	Seq. Line : 8						
Acq. Instrument	:	Instrument 1	Location : Vial 91						
Injection Date	:	28-May-18, 05:37:08	Inj : 1						
			Inj Volume : 1 µl						
Acq. Method	:	C:\Chem32\1\DATA\ZACH20	18\ZACH 2018-05-28 05-02-33\Z1.M						
Last changed	:	5/28/2018 4:40:53 AM by	Zach Taylor						
Analysis Method	:	$C: \ CHEM32 \ 1 \ ETHODS \ Z4$.	M						
Last changed	:	7/6/2018 9:23:05 PM by	Zach Taylor						
		(modified after loading)						
Method Info	:	Alditol lab.							



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

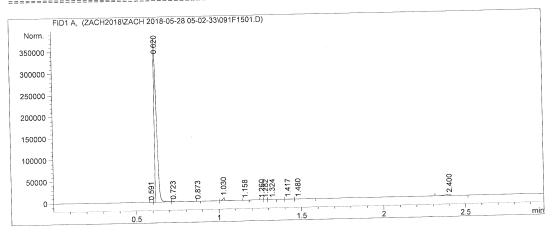
Signal 1: FID1 A,

Peak #	RetTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.591	BV		8.87e-3	10.28078	18.54879	0.00286
2	0.620	vv	s	0.0171	3.44943e5	3.36048e5	96.07149
3	0.724	vv	S	0.0489	2110.92651	719.18097	0.58792
4	0.873	BB	Х	0.0102	11.13801	16.58638	0.00310
5	1.029	VB	s	0.0126	5277.45361	6549.31738	1.46985
6	1.159	BB	Х	0.0135	24.38361	30.02680	0.00679
7	1.261	ВV	Х	0.0138	1.70870	2.06256	0.00048
8	1.283	vv	Х	0.0163	5.88301	5.59974	0.00164
9	1.324	VB	Х	0.0178	33.47744	28.38302	0.00932
10	1.418	BB		0.0161	18.05481	17.38049	0.00503
11	1.481	BB		0.0168	2.42858	2.20656	0.00068

Instrument 1 7/6/2018 10:48:43 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\091F1501.D Sample Name: 6 Acq. Operator : Zach Taylor Seq. Line : 15 Acq. Instrument : Instrument 1 Location : Vial 91

Injection Date	:	28-May-18, 06:10:38 Inj : 1 Inj Volume : 1 µl
	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z1.M 5/28/2018 4:40:53 AM by Zach Taylor
Last changed Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)
Method Info	:	Alditol lab.



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak I #	RetTime [min]	тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				!
1	0.591	BV		8.09e-3	9.42675	19.34163	0.00264
2		vv	S	0.0158	3.42215e5	3.38208e5	95.83924
3	0.020			0.0496	2324.32690	780.56055	0.65094
4	0.873	BB	X	9.24e-3	10.71952	18.28596	0.00300
-	1.030	VB	S	0.0125	5502.98730	6915.51367	1.54114
5	1.158	BB		0.0117	23.41729	32.15455	0.00656
6				0.0118	2.04914	2.55363	0.00057
7	1.260	ВV				5.66247	0.00165
8	1.282	VV	Х	0.0173	5.88916		
9	1.324	VB	Х	0.0170	35.05584	31.53797	0.00982
10	1,417	BB		0.0154	18.23515	18.60901	0.00511
11	1.480	BB		0.0119	1.47404	2.18727	0.00041

Instrument 1 7/6/2018 10:48:46 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\091F2201.D Sample Name: 6 Seq. Line : 22 Acq. Operator : Zach Taylor Location : Vial 91 Acq. Instrument : Instrument 1 Injection Date : 28-May-18, 06:44:06 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z1.M Acq. Method : 5/28/2018 4:40:53 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-28 05-02-33\091F2201.D) Norm. 0-62-0 350000 300000 250000 200000 150000 100000 50000 2.400 030 158 323 417 480 0 873 591 0 2.5 min 0.5 1.5 Area Percent Report Signal Sorted By . 1.0000 Multiplier : 1.0000 Dilution . Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area [pA] 웅 [min] [pA*s] # [min] 1 0.591 BV 8.20e-3 11.50920 23.13983 0.00327 0.620 VV S 0.0167 3.37469e5 3.36288e5 95.78283 2 0.723 VV S 0.0490 2329.54785 792.59979 0.66119 3 8.92711 18.60888 0.00253 0.873 BB X 8.00e-3 4 1.030 VB S 0.0124 5491.86768 6996.18604 1.55874 5 1.158 BB X 0.0117 24.31472 33.51717 0.00690 6 1.94871 2.60470 0.00055 1.260 BV X 0.0111 7 5.84514 5.79631 0.00166 1.283 VV X 0.0168 8 32.00182 0.00968 34.09230 9 1.323 VB X 0.0164 19.12371 0.00519 18.30237 1.417 BB 0.0152 10 2.25717 0.00074 11 1.480 BB 0.0175 2.60550

Instrument 1 7/6/2018 10:48:50 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\091F2901.D Sample Name: 6

*										
==================										
Acq. Operator	:	Zach Taylor	Seq. Line : 29							
Acq. Instrument	:	Instrument 1	Location : Vial 91							
Injection Date	:	28-May-18, 07:17:38	Inj: 1							
			Inj Volume : 1 µl							
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-28 05-02-33\Z1.M							
Last changed	:	5/28/2018 4:40:53 AM by	Zach Taylor							
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M								
Last changed	:	7/6/2018 9:23:05 PM by Z	ach Taylor							
		(modified after loading)								
Method Info	:	Alditol lab.								

0.873 BB X 9.38e-3 10.36750 18.42865 0.00291

1.030 VB S 0.0130 5671.15430 6768.60791 1.59370 1.159 BB X 0.0119 24.46462 32.96812 0.00688

2.16680

6.13805

33.99038

20.24998

2.38928

4 5

6

7

8

9

10

11

1.261 BV X 0.0124

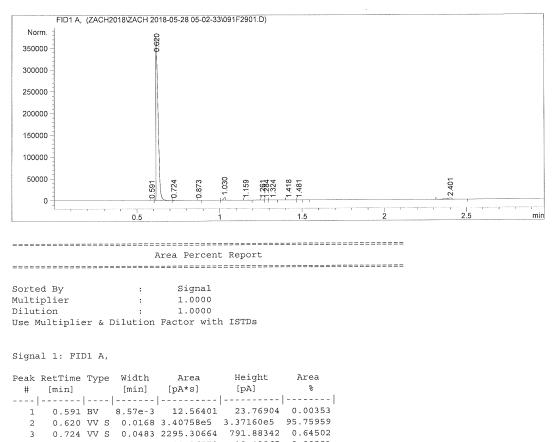
1.284 VV X 0.0165

1.324 VB X 0.0157

1.418 BV X 0.0159

Instrument 1 7/6/2018 10:48:55 PM Zach Taylor

1.481 VB X 0.0146



2.74608 0.00061

5.74816 0.00172

31.62903 0.00955

19.86093 0.00569

2.62346 0.00067

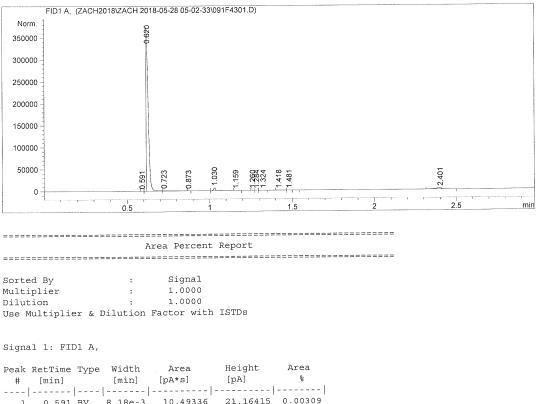
Instrument 1 7/6/2018 10:48:58 PM Zach Taylor

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Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\091F3601.D
Sample Name: 6
   Seq. Line : 36
   Acq. Operator : Zach Taylor
                                           Location : Vial 91
   Acq. Instrument : Instrument 1
   Injection Date : 28-May-18, 07:51:05
                                               Inj: 1
                                         Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z1.M
   Acq. Method
                : 5/28/2018 4:40:53 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
                : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                  (modified after loading)
                : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-28 05-02-33\091F3601.D)
     Norm.
                        0-620
     350000
     300000
     250000
     200000
     150000
     100000
                                                                  2.402
     50000
                                           419
482
                                  080
                          24
                              873
                                     59
                                       324
                       5
        0
                                                                    2.5
                                                                              min
             1.5
                     0.5
    Area Percent Report
    _____
                           Signal
    Sorted By
                      :
                           1.0000
    Multiplier
                      :
                           1.0000
    Dilution
                      :
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                            Area
    Peak RetTime Type Width
                                    Height
                           Area
                          [pA*s]
                                              8
                                    [pA]
         [min]
                   [min]
      #
         8.63e-3 11.36514 21.27430 0.00322
         0.591 BV
      1
         0.620 VV S 0.0169 3.37645e5 3.32118e5 95.71210
      2
          0.724 VV S 0.0482 2338.48804 808.48572 0.66289
      3
          0.873 BB X 9.22e-3 11.25461 19.26573 0.00319
       4
         1.030 VB S 0.0119 5574.84473 6847.86035 1.58030
       5
          1.159 BB X 0.0119 24.96929
                                  33.35322 0.00708
       6
                                    2.48777 0.00053
                           1.87123
          1.260 BV X 0.0125
       7
                                    5.39308 0.00160
          1.284 VV X 0.0162
                           5.63964
       8
                                    32.08714 0.00991
         1.324 VB X 0.0167
                           34.97144
       9
                                    19.33216 0.00541
                           19.10177
                    0.0155
         1.419 BB
      10
                                     2.28559 0.00063
                           2.23135
                    0.0154
      11
          1.482 BB
```

631

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\091F4301.D Sample Name: 6

Acq. Operator	:	Zach Taylor	Seq. Line : 43					
Acq. Instrument	:	Instrument 1	Location : Vial 91					
Injection Date	:	28-May-18, 08:24:38	Inj: 1					
		-	Inj Volume : 1 µl					
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018	\ZACH 2018-05-28 05-02-33\Z1.M					
Last changed	:	5/28/2018 4:40:53 AM by Z	ach Taylor					
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M						
Last changed	:	7/6/2018 9:23:05 PM by Za	ch Taylor					
-		(modified after loading)						
Method Info	:	Alditol lab.						

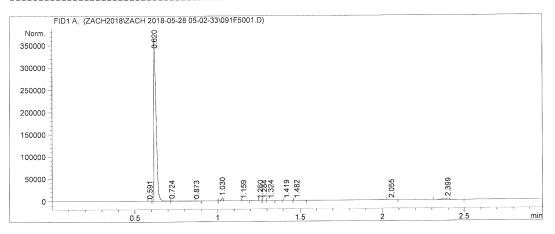


	£					-	1
1	0.591	ВV		8.18e-3	10.49336	21,16415	0.00309
2	0.620	VV	s	0.0146	3.24585e5	3.31831e5	95.58758
3	0.723	vv	\mathbf{S}	0.0489	2425.79321	827.43445	0.71438
4	0.873	BB	Х	8.60e-3	9.45412	18.32570	0.00278
E	5 1.030	VB	S	0.0129	5603.42822	6771.01025	1.65016
e	5 1.159	BB	Х	0.0109	24.21711	33.15110	0.00713
	1.260	вV	Х	0.0119	1.77362	2.38312	0.00052
8	3 1.284	vv	Х	0.0152	4.97171	5.17546	0.00146
<u> </u>	1.324	VB	Х	0.0163	33.36481	31.65457	0.00983
10	1.418	вV	Х	0.0158	19.89141	19.62097	0.00586
13	L 1.481	VB	Х	0.0142	2.07404	2.36352	0.00061

Instrument 1 7/6/2018 10:49:02 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\091F5001.D Sample Name: 6

Acq. Operator	:	Zach Taylor	Seq. Line : 50						
Acq. Instrument	:	Instrument 1	Location : Vial 91						
Injection Date	:	28-May-18, 08:58:07	Inj: 1						
			Inj Volume : 1 µl						
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-28 05-02-33\Z1.M						
Last changed	:	5/28/2018 4:40:53 AM }	5/28/2018 4:40:53 AM by Zach Taylor						
Analysis Method	:	C:\CHEM32\1\METHODS\Z4	1.M						
Last changed	:	7/6/2018 9:23:05 PM by	y Zach Taylor						
		(modified after loadi)	ng)						
Method Info	:	Alditol lab.							



Area Percent Report Sorted By : Signal Multiplier : 1.0000

Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

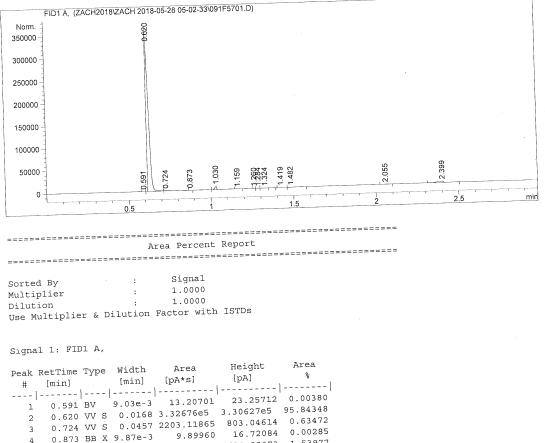
Signal 1: FID1 A,

Peak #	RetTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
#	[[[[]]]]			[[[[]]]]	[pr b]	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
			-				
1	0.591	ΒV		8.89e-3	12.02827	21.62791	0.00337
2	0.620	VV	S	0.0168	3.42603e5	3.38984e5	95.95936
3	0.724	vv	s	0.0464	2228.25269	800.65076	0.62411
4	0.873	BB	Х	9.55e-3	9.58725	16.72736	0.00269
5	1.030	VB	s	0.0128	5350.41455	6535.94922	1.49859
6	1.159	BB	Х	0.0125	24.71338	30.96488	0.00692
7	1.260	вv	Х	0.0132	1.69444	2.13303	0.00047
8	1.284	vv	Х	0.0161	5.65006	5.43427	0.00158
9	1.324	VB	Х	0.0175	34.18801	29.46508	0.00958
10	1,419	BB		0.0158	18.52176	18.24447	0.00519
11	1.482	BB		0.0190	3.10955	2.41234	0.00087

Instrument 1 7/6/2018 10:49:06 PM Zach Taylor

ata File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\091F5701.D ample Name: 6

_				
		= =	Seq. Line : 57	
	Acq. Instrument Injection Date	: :	Zach TaylofLocation : Vial 91Instrument 1Inj : 128-May-18, 09:31:40Inj : 1Inj Volume : 1 µl	
	Last changed	::	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z1.M 5/28/2018 4:40:53 AM by Zach Taylor C:\CHEM32\1\METHODS\Z4.M 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)	
	Method Info	:	Alditol lab.	

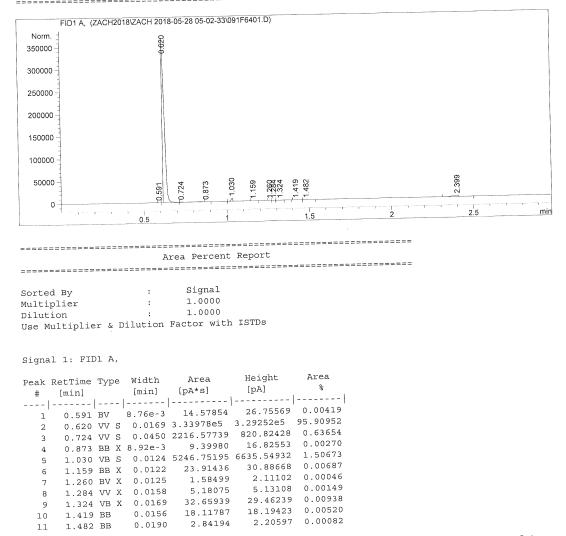


	2	0.020	~ ~	-	0		803.04614	0,63472
	3	0.724	WV	S	0.0457	2203.11865		
	2	•••			0 070 7	9.89960	16,72084	0.00285
	4	0.873	BB	х	9.87e-3			1.53977
		1.030	VB	S	0.0126	5344.59570	6634.82373	
	5		. –			23.32949	30.07394	0.00672
	6	1.159	BB	х	0.0123			0.00056
	_	1.260	DV	v	0.0128	1.93540	2.36358	
	7					5.64359	5.51494	0.00163
	8	1.284	VV	Х	0.0159			0.00970
	~	1.324	37D	v	0.0173	33.65392	29.56991	
	9					18.55254	18,22004	0.00534
1	LO	1,419	BB		0.0167			0 00074
					0.0167	2.55698	2.34475	0.00074
-	11	1.482	вв		0.0107			

Instrument 1 7/6/2018 10:49:10 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\091F6401.D Sample Name: 6

IPIE Name: 6					
	= == :				
Acq. Instrument	:	28-May-18, 10:05:08 Inj : 1 Inj Volume : 1 µl			
Acq. Method Last changed Analysis Method Last changed	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z1.M 5/28/2018 4:40:53 AM by Zach Taylor C:\CHEM32\1\METHODS\Z4.M 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)			
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 10:49:13 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\090F0501.D
Sample Name: 6
   Seq. Line : 5
   Acq. Operator : Zach Taylor
                                          Location : Vial 90
   Acq. Instrument : Instrument 1
   Injection Date : 28-May-18, 14:42:55
                                              Inj: 1
                                        Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z1.M
   Acq. Method
              : 5/28/2018 4:40:53 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
              : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                 (modified after loading)
   Method Info
               : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\090F0501.D)
     Norm.
                       0.621
    350000
    300000
    250000
    200000
     150000
     100000
     50000
                                                                 2.408
                                      265
329
424
486
                          724
                                    163
                       591
        0
                                  2
                                                                   2.5
                                                                             min
                    0.5
                                            1.5
   Area Percent Report
   Signal
   Sorted By
                     :
   Multiplier
                     :
                          1.0000
                          1.0000
                     :
   Dilution
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
                                   Height
                                           Area
    Peak RetTime Type Width
                          Area
                                   [pA]
                                            웅
                         [pA*s]
     #
       [min]
                  [min]
    0.591 BV 9.20e-3 6.57619 11.29005 0.00186
      1.
         0.621 VV S 0.0156 3.38904e5 3.40282e5 95.91536
      2
         0.724 VV S 0.0479 2488.17432 866.36536 0.70419
      3
         0.875 BB X 0.0100 10.51254 16.10946 0.00298
      4
         1.033 VB S 0.0122 5169.25293 6687.05225 1.46298
      5
         1.163 BB X 0.0125 24.14829 30.33625 0.00683
      6
                          1.69326
                                   2.19521 0.00048
         1.265 BV X 0.0129
      7
                                  6.56718 0.00199
      8
         1.287 VV X 0.0165
                                  28.65471 0.00946
         1.329 VB X 0.0176 33.44275
      9
                                  17.87270 0.00583
                   0.0174
                          20.58378
         1.424 BV
      10
        1.486 VB
                                   2.23214 0.00065
                 0.0160
                         2.30068
      11
                                                                 Page 1 of 2
 Instrument 1 7/6/2018 10:49:51 PM Zach Taylor
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\090F1101.D Sample Name: 6 Seq. Line : 11 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Injection Date : 28-May-18, 15:15:57 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z1.M Acq. Method : 5/28/2018 4:40:53 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\090F1101.D) Norm ģ 350000 300000 250000 200000 150000 100000 50000 2.408 285 329 062 724 162 424 487 0.591 P 0 2.5 0.5 1.5 Area Percent Report Signal Sorted By : 1.0000 Multiplier : Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area % [min] [pA*s] [pA] # [min] 1 0.591 BV 9.08e-3 11.61011 20.28138 0.00331 0.621 VV S 0.0166 3.36378e5 3.37749e5 95.99366 2 0.724 VV S 0.0484 2448.12769 843.37830 0.69863 3 16.16017 0.00292 0.875 BB X 9.79e-3 10.23923 4 1.032 VB S 0.0121 5033.63818 6628.43848 1.43647 5 1.162 BB X 0.0125 23.67246 29.83627 0.00676 6 1.73662 6.63559 2.22879 0.00050 1.265 BV X 0.0130 7 1.287 VV X 0.0165 6.21237 0.00189 8 27.69460 0.00923 1.329 VB X 0.0176 32.32826 9 0,0160 18.17366 17.73579 0.00519 10 1.424 BB 2.37105 0.00072 2.51805 11 1.487 BB 0.0164

Instrument 1 7/6/2018 10:49:54 PM Zach Taylor

Page 1 of 2

min

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\090F1701.D
   Sample Name: 6
   Acq. Operator : Zach Taylor
                                           Location : Vial 90
   Acq. Instrument : Instrument 1
                                                Inj: 1
   Injection Date : 28-May-18, 15:49:04
                                          Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z1.M
                : 5/28/2018 4:40:53 AM by Zach Taylor
   Acq. Method
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
                : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                  (modified after loading)
                : Alditol lab.
   Method Info
    FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\090F1701.D)
                        0:620
      Norm.
     350000
     300000
      250000
      200000
      150000
      100000
                                                                    2.410
                                                            2.062
                                            423
                                              486
       50000
                            724
                                                                                min
                                                                      2.5
          0
                      0.5
     Area Percent Report
      *
                             Signal
                        ٠
     Sorted By
                             1.0000
                        :
      Multiplier
                             1.0000
      Use Multiplier & Dilution Factor with ISTDs
      Signal 1: FID1 A,
                                               Area
                                      Height
      Peak RetTime Type Width
                              Area
                                                %
                                      [pA]
                             [pA*s]
                      [min]
                                               ----l
       [min]
                                       _____
                                      14.68281 0.00226
                              8.01885
            0.620 VV S 0.0167 3.39189e5 3.38063e5 95.79231
                    8.77e-3
         1 0.591 BV
            0.724 VV S 0.0468 2466.22461 878.74280 0.69650
         2
                                      18.05788 0.00305
         3
                             10.81151
            0.875 BB X 9.39e-3
            1.033 VB S 0.0121 5345.48145 6969.64844
                                               1.50965
         4
                                      32.95208 0.00719
            1.162 BB X 0.0122 25.46490
         5
                                       2.50208 0.00054
         6
                              1.92719
            1.264 BV X 0.0128
                                        6.22709 0.00192
         7
                              6.80090
            1.286 VV X 0.0167
                                       30.52077 0.00986
         8
                              34.92922
            1.328 VB X 0.0174
                                       19.46791 0.00548
         9
                             19.39926
                       0.0156
            1.423 BB
                                       2.49688 0.00076
         10
                              2.70045
                       0.0166
            1.486 BB
                                                                      Page 1 of 2
         11
    Instrument 1 7/6/2018 10:50:01 PM Zach Taylor
```

```
)ata File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\090F2301.D
  Jample Name: 6
   Acq. Operator : Zach Taylor
                                          Location : Vial 90
   Acq. Instrument : Instrument 1
                                              Inj : 1
   Injection Date : 28-May-18, 16:22:07
                                         Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z1.M
               : 5/28/2018 4:40:53 AM by Zach Taylor
   Acq. Method
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
              : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                 (modified after loading)
               : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\090F2301.D)
                       621
      Norm.
     350000
     300000
     250000
      200000
      150000
      100000
                                                                  2.409
                                                          064
                                       285
329
329
                                           424
487
                                     63
       50000
                           724
                                                          N
                                                                      2.5
                                                                             min
         0
                     0.5
     Area Percent Report
     Signal
     Sorted By
                            1.0000
                      :
     Multiplier
                            1.0000
                       :
     Use Multiplier & Dilution Factor with ISTDs
     Dilution
      Signal 1: FID1 A,
                                             Area
                                    Height
      Peak RetTime Type Width
                            Area
                                              00
                                     [pA]
                           [pA*s]
                     [min]
                                     -----
          [min]
       #
      7.58813 13.05881 0.00223
           0.592 BV
           0.621 VV S 0.0152 3.27025e5 3.41526e5 95.97199
                    9.18e-3
        1
           0.724 VV S 0.0477 2304.49561 805.89264 0.67630
        2
                                     15.62522 0.00288
        3
                             9.80847
           0.875 BB X 9.72e-3
           1.033 VB S 0.0123 4925.63770 6293.71484 1.44553
        4
                                    29.12527 0.00669
        5
           1.163 BB X 0.0123 22.80245
                                     2.02258 0.00046
         6
                             1.56420
           1.265 BV X 0.0114
                                      5.76737 0.00180
         7
```

Instrument 1 7/6/2018 10:50:04 PM Zach Taylor

0.0159

0.0185

1.288 VV X 0.0177

1.329 VB X 0.0177

1.424 BB

1.487 BB

8

9

10

11

6.13735

31.70590

17.78257

2.58412

26.99455 0.00930

2.08406 0.00076

17.41950 0.00522

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\090F2901.D Sample Name: 6 _____ Seq. Line : 29 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Injection Date : 28-May-18, 16:55:09 Inj: 1 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z1.M Acq. Method : 5/28/2018 4:40:53 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\090F2901.D) Norm. 0.639 300000 250000 200000 150000 100000 50000 2.406 163 266 329 425 487 0 2.5 0.5 1.5 Area Percent Report Signal Sorted By • 1.0000 : Multiplier Dilution 1.0000 Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area 8 [pA*s] [pA] [min] # [min] 0.592 BV 9.83e-3 8.52508 13.38379 0.00254 1 0.622 VV S 0.0162 3.22675e5 3.07836e5 96.08631 2 0.724 VV S 0.0492 2247.91797 761.04736 0.66939 3 14.46346 0.00282 0.875 BB X 0.0100 9.46677 4 1.032 VB S 0.0125 4714.79932 5902.36035 1.40398 5 1.163 BB X 0.0128 21.87774 26.65839 0.00651 6 1.69515 5.79655 2.04353 0.00050 1.266 BV X 0.0121 7 5.30209 0.00173 1.288 VV X 0.0182 8 25.28872 0.00903 30.31692 9 1.329 VB X 0.0180 0.0162 16.09636 0.00503 16.90073 10 1.425 BB 2.11679 0.00085

Instrument 1 7/6/2018 10:50:07 PM Zach Taylor

0.0206

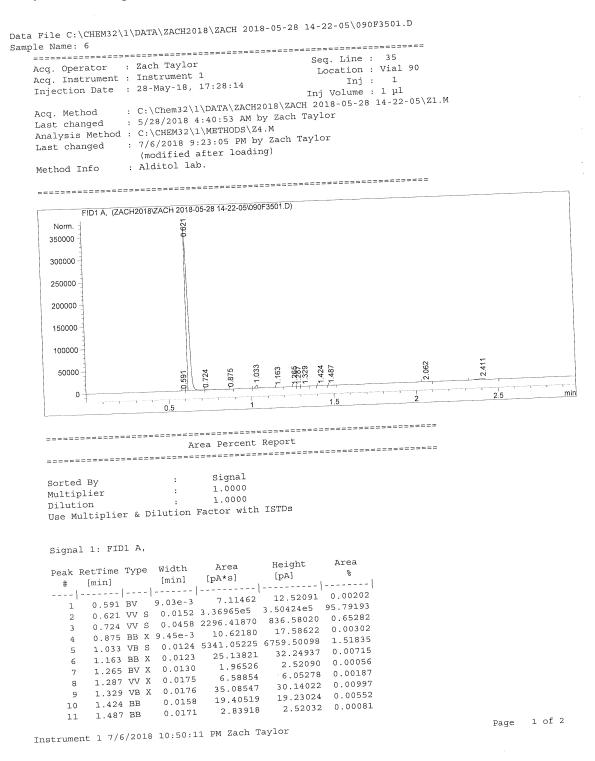
2.85803

11

1.487 BB

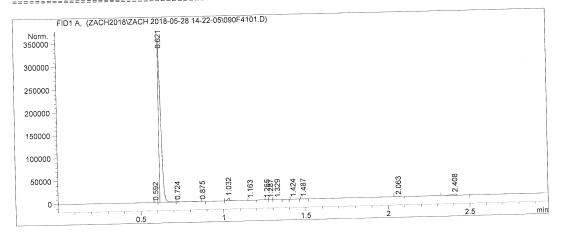
Page 1 of 2

min



Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\090F4101.D Sample Name: 6

	: == :	
Acq. Operator Acq. Instrument Injection Date	: :	Instrument 1 Location : Via 50 28-May-18, 18:01:19 Inj : 1 Inj Volume : 1 µl
Acq. Method Last changed Analysis Method Last changed	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z1.M 5/28/2018 4:40:53 AM by Zach Taylor C:\CHEM32\1\METHODS\Z4.M 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)
Method Info	:	Alditol lab.



Area Percent Report

Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

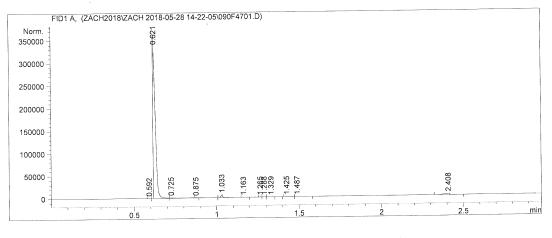
Signal 1: FID1 A,

Peak #	RetTime [min]	Туре	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.592	вv	0.01.00	9.30904	14.23540	0.00278
2	0.621		0.0148	3.21352e5	3.46282e5	95.91777
3	0.724	VV S		2232.21729	792.94055	0.66628
-	0.875	BBX		9.80921	16.23909	0.00293
4	1.032	2010 -		4923.97754	6397.04541	1.46972
5		BBX		22.81312	29.36654	0.00681
6	1.163			1.66139	2.15709	0.00050
7	1.265			5.77151	5.44216	0.00172
8	1.287	VV X			27.23553	0.00935
9	1.329	VB X	-	31.33453		0.00532
10	1.424	BB	0.0159		17.49191	
11	1.487	BB	0.0163	2.42815	2.30962	0.00072

Instrument 1 7/6/2018 10:50:14 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\090F4701.D Sample Name: 6

-										
Acq. Operator	:	Zach Taylor Seq. Line : 47								
Acq. Instrument	:	Instrument 1 Location : Vial 90								
Injection Date	:	28-May-18, 18:34:28 Inj : 1								
2		Inj Volume : 1 µl								
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z1.M								
		5/28/2018 4:40:53 AM by Zach Taylor								
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M								
Last changed	•	7/6/2018 9:23:05 PM by Zach Taylor								
habe changed	•	(modified after loading)								
Method Info	:	Alditol lab.								



Area Percent Report

Sorted By Signal : 1.0000 Multiplier : 1.0000 Dilution • Use Multiplier & Dilution Factor with ISTDs

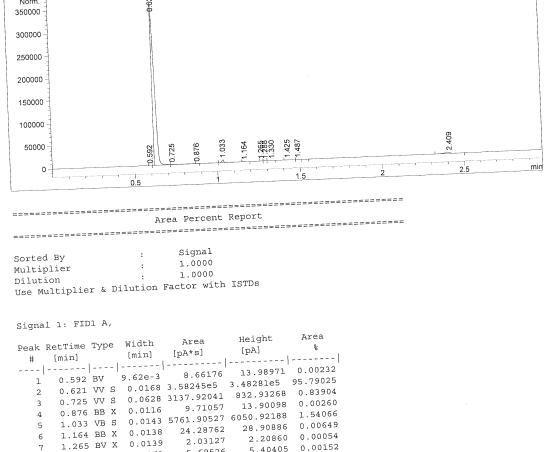
Signal 1: FID1 A,

=======

Peak	RetTime	Тур	e	Width	Area	Height	Area
#	[min]			[min]	[pA*s]	[pA]	8
			-				
1	0.592	вv		9.50e-3	11.25170	18.49548	0.00314
2	0.621	vv	s	0.0155	3.44164e5	3.49714e5	95.94381
3	0.725	vv	S	0.0574	3125.62476	907.81018	0.87134
4	0.875	BB	х	0.0109	9.21096	14.07573	0.00257
5	1.033	VB	s	0.0130	5035.89697	6022.00781	1.40388
6	1.163	BB	х	0.0128	22.64403	27.65150	0.00631
7	1.265	BV	х	0.0118	1.67332	2.07231	0.00047
8	1.288	vv	х	0.0177	5.64796	5.32691	0.00157
9	1.329	VB	Х	0.0180	31.52750	26.21622	0.00879
10	1.425	BB		0.0161	17.26739	16.59698	0.00481
11	1.487	BB		0.0161	1.98756	2.04765	0.00055

Instrument 1 7/6/2018 10:50:17 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\090F5301.D _____ Sample Name: 6 Seq. Line : 53 Acq. Operator : Zach Taylor Location : Vial 90 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 28-May-18, 19:07:35 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z1.M Acq. Method : 5/28/2018 4:40:53 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\090F5301.D) 9.621 Norm.



5.40405 0.00152

26.88655 0.00901

17.97472 0.00538

2.28566 0.00059

Instrument 1 7/6/2018 10:50:22 PM Zach Taylor

1.288 VV X 0.0163

1.330 VB X 0.0186

1.425 BV X 0.0170

11 1.487 VB X 0.0162

5.69526

33.68092

20.10305

2.21646

7

8

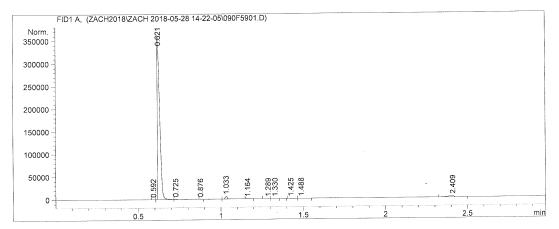
9

10

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\090F5901.D Sample Name: 6

Acq. Operator	: Zach Taylor Seq. Line	e : 59							
Acq. Instrument	: Instrument 1 Location	n : Vial 90							
Injection Date	: 28-May-18, 19:40:38 In	j: 1							
	Inj Volume	e : 1 µl							
Acq. Method	: C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-3	28 14-22-05\Z1.M							
Last changed	: 5/28/2018 4:40:53 AM by Zach Taylor								
Analysis Method	: C:\CHEM32\1\METHODS\Z4.M								
Last changed	: 7/6/2018 9:23:05 PM by Zach Taylor								
_	(modified after loading)								
Method Info	: Alditol lab.								





Area Percent Report

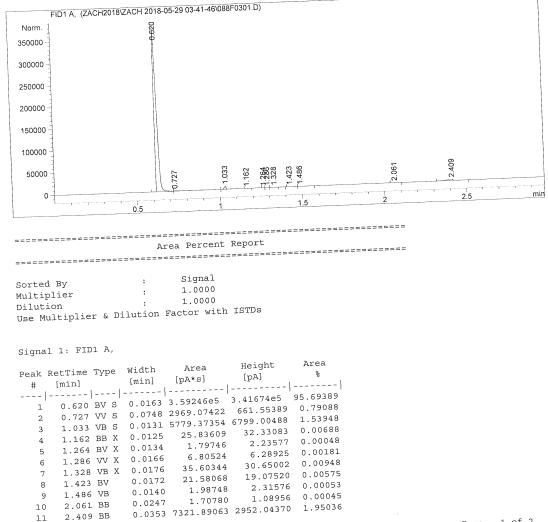
Sorted By : Signal Multiplier : 1.0000 Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Туŗ	be	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.592	вv		0.0102	13.03472	19.59670	0.00352
2	0.621	vv	s	0.0166	3.56069e5	3.53168e5	96.22162
3	0.725	vv	S	0.0508	2251.04102	738.96875	0.60831
4	0.876	BB	Х	0.0115	9.84529	14.24411	0.00266
5	1.033	VB	s	0.0134	5075.59033	5808.23047	1.37159
6	1.164	BB	Х	0.0139	23.83358	28.12902	0.00644
7	1.289	вv	х	0.0206	7.48948	5.25485	0.00202
8	1.330	VB	х	0.0196	32.99397	26.03261	0.00892
9	1.425	BB		0.0164	18.24765	17.15006	0.00493
10	1.488	BB		0.0215	3.32348	2.21239	0.00090
11	2.409	BB		0.0331	6546.52637	2777.96094	1.76909

Instrument 1 7/6/2018 10:50:26 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\088F0301.D Sample Name: 6 Seq. Line : 3 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 29-May-18, 03:53:29 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z1.M Acq. Method : 5/28/2018 4:40:53 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info

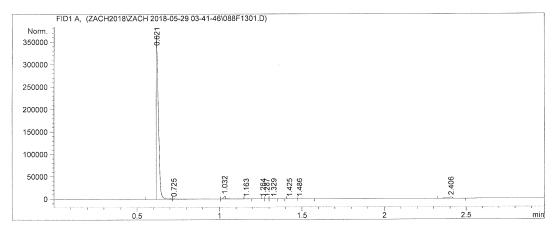


Instrument 1 7/6/2018 10:50:36 PM Zach Taylor

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Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\088F0801.D
Sample Name: 6
   _____
                                             Seq. Line : 8
   Acq. Operator : Zach Taylor
                                             Location : Vial 88
   Acq. Instrument : Instrument 1
                                                 Inj: 1
   Injection Date : 29-May-18, 04:25:42
                                            Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z1.M
   Acq. Method
               : 5/28/2018 4:40:53 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
                : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                  (modified after loading)
                 : Alditol lab.
   Method Info
   _____
          FID1 A, (ZACH2018\ZACH 2018-05-29 03-41-46\088F0801.D)
      Norm.
                         0.621
     350000
     300000
     250000
     200000
      150000
      100000
                                                                      2.408
      50000
                                             425
487
                                    033
                                0.875
                                       164
                                         2000
                            '26
         0
                                                                        2.5
                                                                                  min
             1.5
                      0.5
    Area Percent Report
     Signal
                       .
    Sorted By
                             1.0000
    Multiplier
                       :
                             1.0000
    Dilution
    Use Multiplier & Dilution Factor with ISTDs
     Signal 1: FID1 A,
                                      Height
                                               Area
     Peak RetTime Type Width
                             Area
                                                8
                                      [pA]
                           [pA*s]
                     [min]
      #
          [min]
      0.621 BV S 0.0171 3.65039e5 3.45036e5 95.96902
0.726 VV S 0.0691 3148.09790 759.50531 0.82764
       1
       2
                            9.22095 13.04662 0.00242
           0.875 BB X 0.0118
       3
           1.033 VB S 0.0135 5351.04297 6044.33057 1.40679
       4
           1.164 BB X 0.0140 25.19409 29.25667 0.00662
       5
                                      2.09267 0.00043
6.06398 0.00172
           1.265 BV X 0.0132
                             1.65403
        6
           1.288 VV X 0.0179
                              6.52785
        7
                                      26.61271 0.00876
                            33.33887
           1.329 VB X 0.0186
        8
                                      18.42384 0.00652
                            24.78589
           1.425 BV
                     0.0197
        9
                                      2.24578 0.00079
                             2.99443
                     0.0204
           1.487 VB
       10
                     0.0345 6729.85205 2798.60889 1.76928
           2.408 BB
       11
                                                                       Page 1 of 2
  Instrument 1 7/6/2018 10:50:38 PM Zach Taylor
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\088F1301.D Sample Name: 6

L										
Acq. Operator	:	Zach Taylor Seq. Line : 13								
Acq. Instrument	:	Instrument 1 Location : Vial 88								
Injection Date	:	29-May-18, 04:57:54 Inj : 1								
		Inj Volume : 1 µl								
Acq. Method	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z1.M								
Last changed	:	5/28/2018 4:40:53 AM by Zach Taylor								
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M								
Last changed	:	7/6/2018 9:23:05 PM by Zach Taylor								
		(modified after loading)								
Method Info	:	Alditol lab.								



Area Percent Report

Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

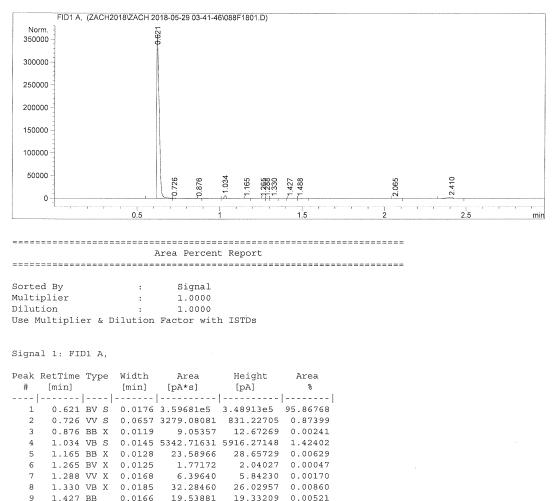
Signal 1: FID1 A,

Peak #	RetTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			-				
1	0.621	BV	s	0.0152	3.30805e5	3.45501e5	95.79062
2	0.725	VV	S	0.0659	3268.02417	826.97546	0.94632
3	1.032	VB	S	0.0124	4983.17090	6349.71826	1.44297
. 4	1.163	BB 1	Х	0.0121	21.81888	28.44940	0.00632
5	1.264	BV I	Х	0.0120	1.38977	1.93129	0.00040
6	1.287	VV .	х	0.0160	5.63187	5.48965	0.00163
7	1.329	VB 3	Х	0.0174	30.62761	26.72566	0.00887
8	1.425	BB		0.0176	22.25563	19.03973	0.00644
9	1.486	BB		0.0108	1.23090	2.11260	0.00036
10	2.406	BB		0.0326	6202.56543	2675.20459	1.79607

Instrument 1 7/6/2018 10:50:40 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\088F1801.D Sample Name: 6

Acq. Operator	:	Zach Taylor	Seq. Line : 18						
Acq. Instrument	:	Instrument 1	Location : Vial 88						
Injection Date	:	29-May-18, 05:30:06	Inj : 1						
			Inj Volume : 1 µl						
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-29 03-41-46\Z1.M						
Last changed	:	5/28/2018 4:40:53 AM	by Zach Taylor						
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4.M						
Last changed	:	7/6/2018 9:23:05 PM b	y Zach Taylor						
		(modified after loadi	ng)						
Method Info	:	Alditol lab.							



2.20632 0.00078

1.04607 0.00041

Instrument 1 7/6/2018 10:50:44 PM Zach Taylor

0.0166

0.0194

0.0234

2.91622

1.52849

9

1.488 BB

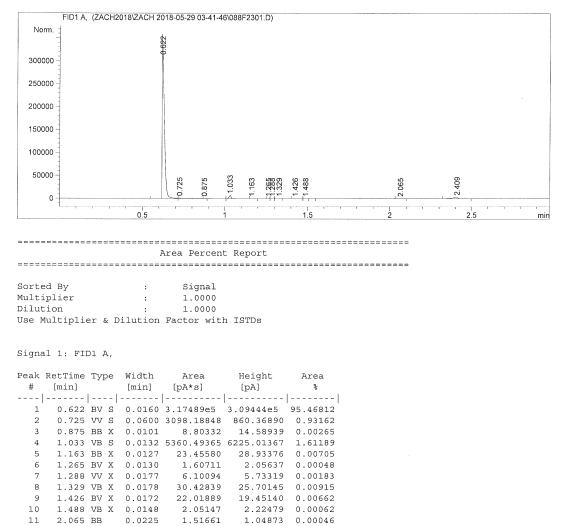
2.065 BB

10

11

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\088F2301.D Sample Name: 6

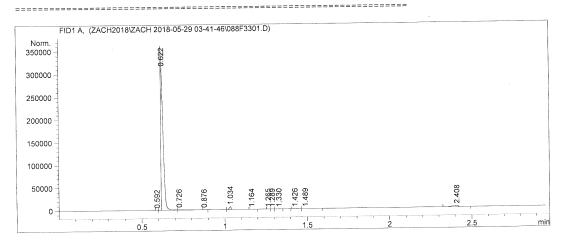
:	Zach Taylor	Seq. Line : 23						
:	Instrument 1	Location : Vial 88						
:	29-May-18, 06:02:22	Inj: 1						
		Inj Volume : 1 µl						
:	C:\Chem32\1\DATA\ZACH	12018\ZACH 2018-05-29 03-41-46\Z1.M						
:	5/28/2018 4:40:53 AM	by Zach Taylor						
:	C:\CHEM32\1\METHODS\2	54.M						
:	7/6/2018 9:23:05 PM k	y Zach Taylor						
	(modified after loadi	.ng)						
:	Alditol lab.							
	: : : : :							



Instrument 1 7/6/2018 10:50:49 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\088F2801.D
Sample Name: 6
   Seq. Line : 28
   Acq. Operator : Zach Taylor
                                            Location : Vial 88
   Acq. Instrument : Instrument 1
                                                Inj: 1
   Injection Date : 29-May-18, 06:34:39
                                           Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z1.M
   Acq. Method
               : 5/28/2018 4:40:53 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                  (modified after loading)
                 : Alditol lab.
   Method Info
    FID1 A, (ZACH2018\ZACH 2018-05-29 03-41-46\088F2801.D)
      Norm.
                        9.621
     350000
     300000
     250000
     200000
     150000
     100000
                                                                    2.408
      50000
                                            426
489
                                      164
                                       285
                           725
                               3876
                        392
                                                                        0
                                                                      2.5
                                                                                min
                      0.5
    Area Percent Report
    _____
                            Signal
    Sorted By
                       :
                            1.0000
    Multiplier
                       :
                            1.0000
                      •
    Dilution
    Use Multiplier & Dilution Factor with ISTDs
     Signal 1: FID1 A,
                                     Height
                                              Area
                            Area
     Peak RetTime Type Width
                                               Ŷ
                                     [pA]
                           [pA*s]
                    [min]
      #
          [min]
                                     -----|-----|
     8.03837
                                             0.00121
          0.592 BV 8.36e-3
                             4.10696
       1
          0.621 VV S 0.0148 3.26183e5 3.51859e5 95.71900
       2
          0.725 VV S 0.0605 3072.55396 846.22675 0.90165
       3
                                     14.77036 0.00296
                           10.09828
          0.876 BB X 0.0114
       4
          1.034 VB S 0.0132 5157.85498 6044.37061 1.51358
       5
          1.164 BB X 0.0137 23.47016 28.36134 0.00689
       6
                                     2.13188 0.00053
           1.265 BV X 0.0123
                             1.80481
        7
                                     5.77752 0.00181
                             6.15550
           1.289 VV X 0.0164
        8
                                     25.08227 0.00884
                            30.11476
          1.330 VB X 0.0180
       9
                                    17.49992 0.00549
                            18.69699
           1.426 BB
                     0.0173
       10
                                     2.04519 0.00055
                             1.88069
          1.489 BB
                     0.0147
       11
                                                                     Page 1 of 2
  Instrument 1 7/6/2018 10:50:52 PM Zach Taylor
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\088F3301.D Sample Name: 6 Acq. Operator : Zach Taylor Seq. Line : 33 Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 29-May-18, 07:06:58 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z1.M Acq. Method Last changed : 5/28/2018 4:40:53 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab.



Area Percent Report

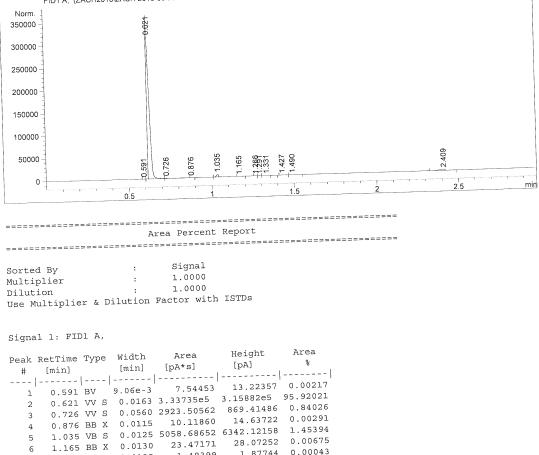
Sorted By:SignalMultiplier:1.0000Dilution:1.0000Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
1	0.592	вv		8.48e-3	5.95126	11.42061	0.00176
2	0.622	vv	S	0.0161	3.24194e5	3.12330e5	95.77926
3	0.726	vv	S	0.0580	2974.78955	854.71185	0.87887
4	0.876	BB	Х	0.0111	9.96508	14.97801	0.00294
5	1.034	VB	S	0.0122	5020.98242	5962.62158	1.48339
6	1.164		Х	0.0126	22.75821	28.14391	0.00672
7	1.265		х	0.0132	1.95833	2.29589	0.00058
8	1.289			0.0160	6.17965	5.98840	0.00183
9	1.330	VB	X	0.0171	30.72327	25.70131	0.00908
10	1.426			0.0162	17.89831	17.18393	0.00529
11	1.489			0.0122	1.43842	2.04495	0.00042

Instrument 1 7/6/2018 10:50:56 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\088F3801.D Sample Name: 6 _____ Seq. Line : 38 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 29-May-18, 07:39:17 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z1.M Acq. Method : 5/28/2018 4:40:53 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-29 03-41-46\088F3801.D)



1.87744 0.00043

5.69626 0.00170

25.18338 0.00900

16.74786 0.00505

2.31136 0.00095

Instrument 1 7/6/2018 10:50:59 PM Zach Taylor

0.0162

0.0215

1.266 BV X 0.0132

1.291 VV X 0.0161

1.331 VB X 0.0185

1.427 BB

1.490 BB

7

8

9

10

11

1.48399

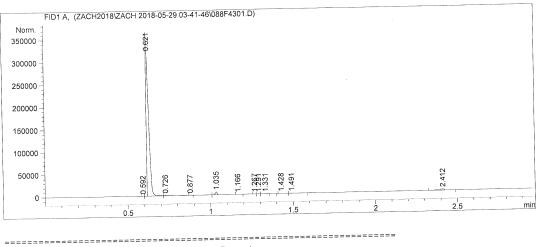
31.31484

17.56158

3.30941

5.92214

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\088F4301.D Sample Name: 6 Seq. Line : 43 Acq. Operator : Zach Taylor Location : Vial 88 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 29-May-18, 08:11:30 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z1.M Acq. Method : 5/28/2018 4:40:53 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info



Area Percent Report

Sorted By		:	Sigr	nal	
Multiplier		:	1.00	000	
Dilution		:	1.00		
Use Multiplier	δ.	Dilution	Factor	with	ISTDs

Signal 1: FID1 A,

Peak #	RetTime [min]	Тур	e	Width [min]	Area [pA*s]	Height [pA]	Area %
			- 1				
1	0.592	BV		8.42e-3	5.30547	10.28355	0.00149
2	0.621	W	S	0.0165	3.40698e5	3.19096e5	95.84764
3	0.726			0.0539	2908.55200	898.65137	0.81826
4	0.877		x	0.0118	10.47654	14.80651	0.00295
5	1.035			0.0129	5279.56934	6324.05615	1.48529
5	1.166	BB		0.0127	23.38579	28.65448	0.00658
5	1.267	BV		0.0152	1.98392	2,17051	0.00056
	1.267			0.0152	6.06410	5.79965	0.00171
8				0.0185	33,36639	26.89669	0.00939
9	1.331		х		18.75425	17.77776	0.00528
10	1.428	BB		0.0163			0.00068
11	1.491	BB		0.0163	2.42082	2.29283	0.00066

Instrument 1 7/6/2018 10:51:02 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\088F4801.D
   Sample Name: 6
                                           Seq. Line : 48
   Acq. Operator : Zach Taylor
                                            Location : Vial 88
   Acq. Instrument : Instrument 1
                                                Inj : 1
   Injection Date : 29-May-18, 08:43:43
                                           Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-29 03-41-46\Z1.M
   Acq. Method
                : 5/28/2018 4:40:53 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
                 : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                  (modified after loading)
                 : Alditol lab.
    Method Info
    FID1 A, (ZACH2018\ZACH 2018-05-29 03-41-46\088F4801.D)
                         0.621
      Norm
     350000
      300000
      250000
      200000
      150000
      100000
                                                            2.069
       50000
                                       166
                                             428
491
                                         33,39
                            726
                         50
                                                                          min
         0
                                                                       2.5
                      0.5
     Area Percent Report
     Signal
                        :
     Sorted By
                             1.0000
                       :
     Multiplier
                             1.0000
                       :
     Dilution
     Use Multiplier & Dilution Factor with ISTDs
     Signal 1: FID1 A,
                                               Area
                                      Height
      Peak RetTime Type Width
                             Area
                                                8
                                      [pA]
                            [pA*s]
                      [min]
          [min]
       #
          -----|----|-----|------|
                                              ------
      ----
                                     14.04919 0.00202
                              7.21346
           0.621 VV S 0.0156 3.42263e5 3.45536e5 95.76634
           0.591 BV 8.39e-3
        1
            0.726 VV S 0.0594 3610.98047 1012.87415 1.01036
        2
                                      14.54529 0.00284
        3
                            10.13717
            0.876 BB X 0.0116
           1.035 VB S 0.0126 5209.59375 6446.24072 1.45766
        4
           1.166 BB X 0.0128 23.25406 28.30134 0.00651
        5
                                       1.95470 0.00047
         6
                              1.66400
            1.267 BV X 0.0142
                                       5.52735 0.00154
         7
                              5.50310
            1.291 VV X 0.0156
                                       26.28365 0.00911
         8
                             32.54593
            1.331 VB X 0.0184
                                      17.14134 0.00491
         9
                             17.55261
                      0.0159
           1.428 BB
        10
                                       2.10123 0.00036
                              1.28569
                      0.0111
        11
            1.491 BB
                                                                      Page 1 of 2
   Instrument 1 7/6/2018 10:51:12 PM Zach Taylor
```

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\086F0401.D
Sample Name: 1
   Acq. Operator : Zach Taylor
                                          Seq. Line : 4
                                           Location : Vial 86
   Acq. Instrument : Instrument 1
   Injection Date : 28-May-18, 05:17:02
                                                Inj: 1
                                          Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z3.M
   Acq. Method
               : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                 (modified after loading)
   Method Info
                : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-28 05-02-33\086F0401.D)
     Norm.
                        0.638
     300000
     250000
     200000
     150000
     100000
     50000
                                       .260
1.351
                                                           601
                                 028
        0
                                                                       2.5
                                                                              min
                    0.5
    Area Percent Report
    Sorted By
                           Signal
                     :
   Multiplier
                     :
                           1,0000
                           1.0000
   Dilution
                     :
   Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
    Peak RetTime Type Width
                           Area
                                   Height
                                            Area
                         [pA*s]
                                   [pA]
                                             Ŷ
     #
        [min]
                   [min]
    0.638 BB S 0.0164 3.25076e5 3.05051e5 95.40269
      1
                                  3.45240 0.00148
2.81686 0.00166

        1.028
        BB
        X
        0.0210
        5.03124

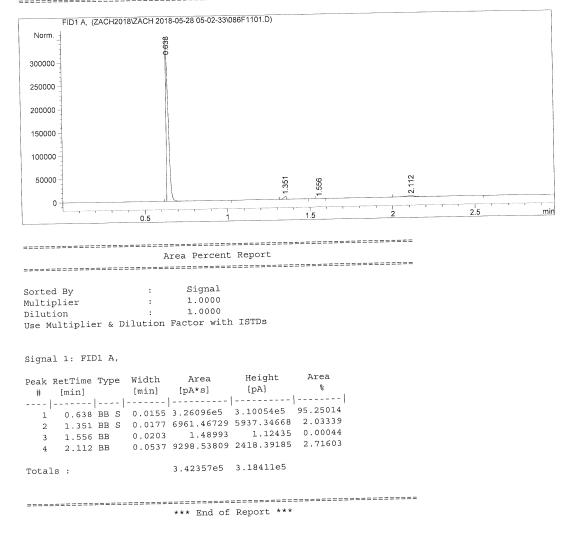
        1.260
        BV
        0.0314
        5.65391

      2
         1.260 BV
      3
         1.351 VB S 0.0181 6689.79004 5874.43945 1.96331
      4
         1.556 BB
                   0.0200
                           1.31186 1.00444 0.00039
      5
                  0.0508 8963.14844 2355.64453 2.63049
         2.109 BB
      6
                         3.40741e5 3.13288e5
    Totals :
```

Instrument 1 7/6/2018 10:51:58 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\086F1101.D Sample Name: 1

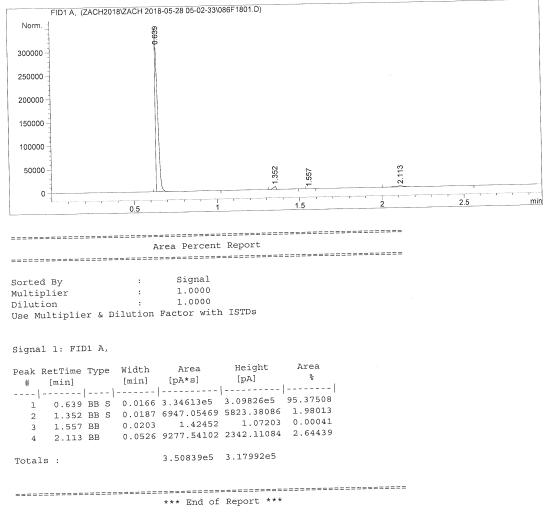
Acg. Operator	: Zach Taylor	Seq. Line : 11
Acq. Instrument		Location : Vial 86
	: 28-May-18, 05:50:33	Inj : 1
-		Inj Volume : 1 µl
Last changed	: C:\Chem32\1\DATA\ZACH2C : 5/28/2018 4:51:49 AM by : C:\CHEM32\1\METHODS\Z4. : 7/6/2018 9:23:05 PM by (modified after loading	M Zach Taylor
Method Info	: Alditol lab.	



Instrument 1 7/6/2018 10:52:04 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\086F1801.D Sample Name: 1

mpre Mame, r			
	: == :		
Acq. Operator Acq. Instrument	:	Instrument 1 Location : Vial 86	
Injection Date		28-May-18, 06:24:00 Inj : 1 Inj Volume : 1 µl	
Acq. Method Last changed Analysis Method Last changed	:	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z3.M 5/28/2018 4:51:49 AM by Zach Taylor C:\CHEM32\1\METHODS\Z4.M 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading)	
Method Info	:	Alditol lab.	



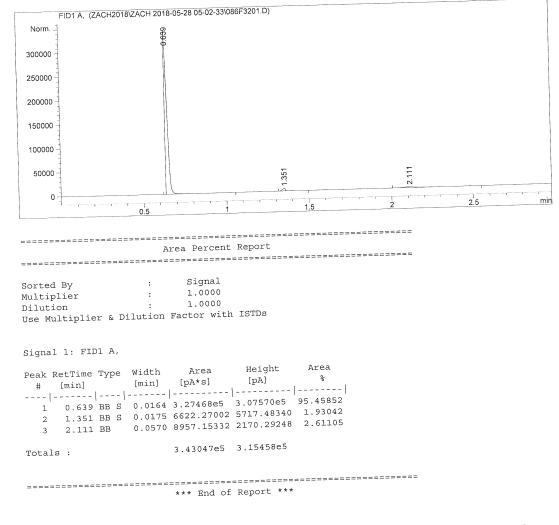
Instrument 1 7/6/2018 10:52:10 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\086F2501.D Sample Name: 1 Seq. Line : 25 Acq. Operator : Zach Taylor Location : Vial 86 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 28-May-18, 06:57:31 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z3.M Acq. Method : 5/28/2018 4:51:49 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-28 05-02-33\086F2501.D) Norm. 0.639 300000 250000 200000 150000 100000 2.110 50000 350 0 2.5 min 1.5 0.5 _____ Area Percent Report Signal : Sorted By 1.0000 : Multiplier 1.0000 : Dilution Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Height Area Peak RetTime Type Width Area [pA] 옹 [min] [pA*s] [min] 1 0.639 BB S 0.0162 3.22543e5 3.08086e5 95.32245
 1.350
 BB
 S
 0.0172
 6740.88965
 5942.96387
 1.99216

 1.556
 BB
 0.0207
 1.37642
 1.00819
 0.00041

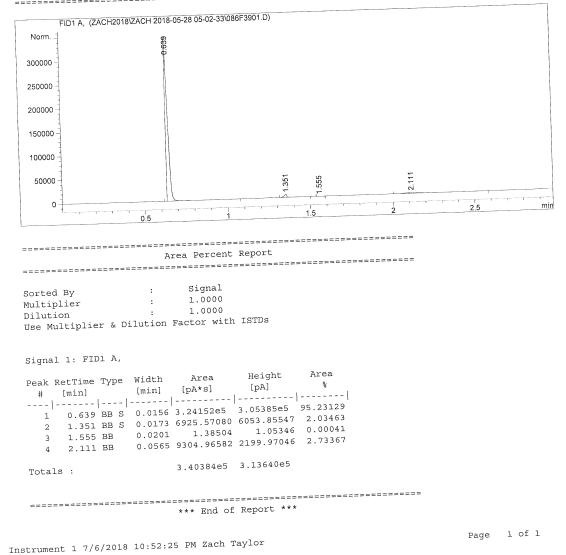
 2.110
 BB
 0.0547
 9085.19238
 2231.60498
 2.68498
 2 3 4 3.38371e5 3.16261e5 Totals : *** End of Report *** Page 1 of 1 Instrument 1 7/6/2018 10:52:14 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\086F3201.D Sample Name: 1 Seq. Line : 32 Acq. Operator : Zach Taylor Location : Vial 86 Acq. Instrument : Instrument 1 Inj : 1 Injection Date : 28-May-18, 07:31:01 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z3.M Acq. Method : 5/28/2018 4:51:49 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info



Instrument 1 7/6/2018 10:52:21 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\086F3901.D
Sample Name: 1
   _____
                                        Seq. Line : 39
   Acq. Operator : Zach Taylor
                                         Location : Vial 86
   Acq. Instrument : Instrument 1
                                             Inj: 1
   Injection Date : 28-May-18, 08:04:34
                                        Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z3.M
   Acq. Method
               : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
              : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                 (modified after loading)
               : Alditol lab.
   Method Info
```



661

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\086F4601.D
Sample Name: 1
   Seq. Line : 46
   Acq. Operator : Zach Taylor
                                                Location : Vial 86
   Acq. Instrument : Instrument 1
   Injection Date : 28-May-18, 08:38:01
                                                     Inj: 1
                                              Inj Volume : 1 µl
                  : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z3.M
   Acq. Method
                : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
    Analysis Method : C:\CHEM32\1\METHODS\Z4.M
                : 7/6/2018 9:23:05 PM by Zach Taylor
    Last changed
                   (modified after loading)
                  : Alditol lab.
    Method Info
    FID1 A, (ZACH2018\ZACH 2018-05-28 05-02-33\086F4601.D)
      Norm.
                           689
     300000
     250000
     200000
      150000
      100000
                                                                  12.112
      50000
                                              .351
                                                                               0 .
                                                                min
                                                                             2.5
                       0.5
                                                  1.5
    Area Percent Report
    _____
                            Signal
1.0000
1.0000
                         :
    Sorted By
                       :
    Multiplier
    Dilution
                        :
    Use Multiplier & Dilution Factor with ISTDs
     Signal 1: FID1 A,
                                                 Area
     Peak RetTime Type Width
                                        Height
                             Area
                      [min] [pA*s]
                                                   8
                                        [pA]
      # [min]

        1
        0.639
        BB
        S
        0.0163
        3.26527e5
        3.10317e5
        95.26683

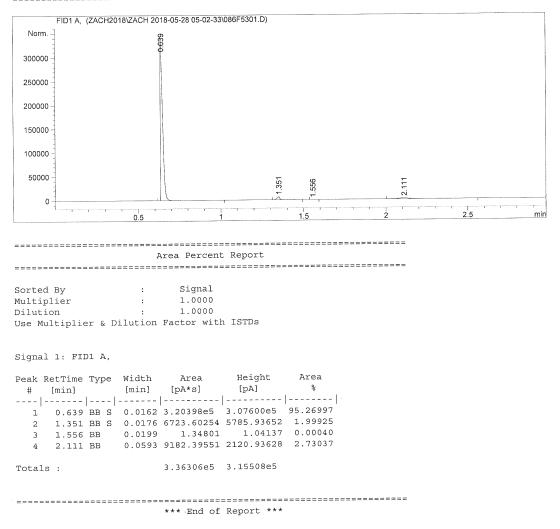
        2
        1.351
        BB
        S
        0.0174
        6842.62695
        5955.79785
        1.99639

        3
        2.112
        BB
        0.0572
        9380.31641
        2190.56543
        2.73678

                            3.42750e5 3.18464e5
     Totals :
     *** End of Report ***
```

Instrument 1 7/6/2018 10:52:28 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\086F5301.D Sample Name: 1 Acq. Operator : Zach Taylor Seq. Line : 53 Location : Vial 86 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 28-May-18, 09:11:34 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z3.M Acq. Method : 5/28/2018 4:51:49 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) : Alditol lab. Method Info



Instrument 1 7/6/2018 10:52:31 PM Zach Taylor

Instrument 1 7/6/2018 10:52:36 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\086F6001.D
Sample Name: 1
   Seq. Line : 60
   Acq. Operator : Zach Taylor
                                            Location : Vial 86
   Acq. Instrument : Instrument 1
                                                Inj: 1
   Injection Date : 28-May-18, 09:45:01
                                           Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z3.M
   Acq. Method
               : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
   Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
                  (modified after loading)
                 : Alditol lab.
   Method Info
    _____
          FID1 A, (ZACH2018\ZACH 2018-05-28 05-02-33\086F6001.D)
      Norm.
     300000
     250000
     200000
     150000
      100000
      50000
                                                             60
                                          351
                                               556
         0
                                                                      2.5
                                                                                mir
                          1.5
                     0.5
    Area Percent Report
    Signal
    Sorted By
                       :
                            1.0000
    Multiplier
                      :
                            1.0000
                      •
    Dilution
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                              Area
                                     Height
     Peak RetTime Type Width
                            Area
                                     [pA]
                                               20
                           [pA*s]
                    [min]
      #
         [min]
     0.639 BB S 0.0159 3.08803e5 3.03316e5 95.18421
       1
         1.351 BB S 0.0172 6578.91748 5806.38965 2.02786
       2

        1.556 BB
        0.0205
        1.35357
        1.00450
        0.00042

        2.109 BB
        0.0586
        9043.45312
        2083.39063
        2.78752

       3
       4
                          3.24427e5 3.11207e5
     Totals :
     _____
                          *** End of Report ***
                                                                     Page 1 of 1
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\086F6701.D Sample Name: 1 Acq. Operator : Zach Taylor Seq. Line : 67 Location : Vial 86 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 28-May-18, 10:18:34 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 05-02-33\Z3.M Acq. Method Last changed : 5/28/2018 4:51:49 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M : 7/6/2018 9:23:05 PM by Zach Taylor Last changed (modified after loading) Method Info : Alditol lab. ______ FID1 A, (ZACH2018\ZACH 2018-05-28 05-02-33\086F6701.D) Norm. 689 300000 250000 200000 150000 100000 50000 1.350 80 à 0 ····· 0.5 2.5 1.5 Area Percent Report Sorted By Signal : Multiplier 1.0000 : 1.0000 Dilution : Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Height Area Area [pA] 00 [pA*s] # [min] [min] -----0.639 BB S 0.0163 3.18066e5 3.01087e5 95.38524 1
 1.350
 BB
 S
 0.0178
 6486.12451
 5801.53711
 1.94513

 2.108
 BB
 0.0587
 8901.96973
 2046.58154
 2.66963
 2 З 3.33454e5 3.08935e5 Totals : ______ *** End of Report ***

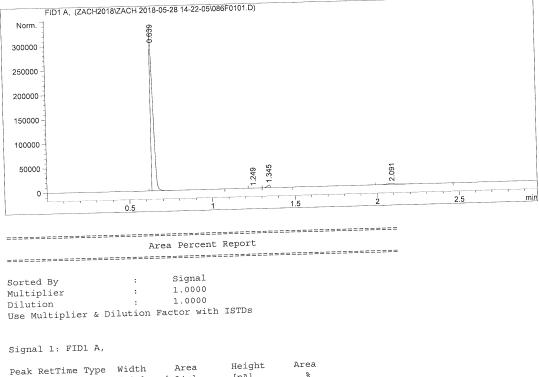
Instrument 1 7/6/2018 10:52:39 PM Zach Taylor

Page 1 of 1

min

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\086F0101.D Sample Name: 1

	Seq. Line : 1							
Acq. Operator								
Acq. Operator	Location : Vial 86							
Acq. Instrument	Instrument. 1							
- I I I Patra	1115024 Inj: 1 28-May-18, 14:24:20 Inj: 1							
-	III VOLUME . I MI							
	C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3	.М						
Acq. Method	C:\Chem32\1\DATA\ZACH2018\ZACH 2010 05 20 21 2							
<u>4</u> -	5/28/2018 4:51:49 AM by Zach Taylor							
Last changed	5/28/2018 4:51.49 14.27 1							
Ameluraia Method	C:\CHEM32\1\METHODS\Z4.M							
	. C. (change of an as DM by Zach Taylor							
Last changed	: 7/6/2018 9:23:05 PM by Zach Taylor							
10000 10000 5	(modified after loading)							
Method Info	: Alditol lab.							



% [pA] [pA*s] [min] [min] # ····· 1 0.639 BB S 0.0171 3.35210e5 2.99189e5 95.61077 2 1.249 BV 0.0303 6.03577 3.04844 0.00172 1.345 VB S 0.0197 6510.35596 5390.66846 1.85692 3 2.091 BB 0.0485 8872.20996 2410.27393 2.53059 4 3.50599e5 3.06993e5

Totals :

*** End of Report ***

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\086F0701.D
Sample Name: 1
   Seq. Line : 7
  Acq. Operator : Zach Taylor
                                       Location : Vial 86
  Acq. Instrument : Instrument 1
                                          Inj: 1
   Injection Date : 28-May-18, 14:57:24
                                      Inj Volume : 1 µl
              : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
             : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
             : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                (modified after loading)
   Method Info
              : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\086F0701.D)
     Norm.
                      0.639
    300000
    250000
    200000
    150000
     100000
     50000
                                      345
                                                      60
        0 -
                                                              2.5
                                                                        min
           0.5
                                         1.5
    Area Percent Report
    _____
                         Signal
    Sorted By
                    :
                   :
                         1.0000
    Multiplier
                         1.0000
                    :
    Dilution
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                 Height
                                        Area
    Peak RetTime Type Width
                        Area
                                         왕
                       [pA*s]
                                [pA]
     #
       [min]
                  [min]
    1 0.639 BB S 0.0163 3.17634e5 3.00393e5 95.37195
2 1.345 BB S 0.0179 6478.15527 5761.92529 1.94512
      3 2.091 BB 0.0516 8935.42187 2390.38696 2.68293
                       3.33047e5 3.08545e5
    Totals :
    _____
                        *** End of Report ***
```

Instrument 1 7/6/2018 10:53:17 PM Zach Taylor

Instrument 1 7/6/2018 10:53:19 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\086F1301.D
   Sample Name: 1
                                       Seq. Line : 13
   Acq. Operator : Zach Taylor
                                        Location : Vial 86
   Acq. Instrument : Instrument 1
                                            Inj: 1
   Injection Date : 28-May-18, 15:30:27
                                       Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
              : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                 (modified after loading)
               : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\086F1301.D)
      Norm.
                       6236
     300000
     250000
     200000
     150000
     100000
                                                        088
                                       .345
      50000
                                                        -
                                                        min
        0 -
                                1
                                                                2.5
                        1.5
                    0.5
    Area Percent Report
    Signal
                     :
     Sorted By
                          1.0000
                     :
     Multiplier
                           1.0000
                     :
     Dilution
     Use Multiplier & Dilution Factor with ISTDs
     Signal 1: FID1 A,
                                           Area
                                   Height
     Peak RetTime Type Width
                          Area
                                           8
                                  [pA]
                   [min] [pA*s]
     # [mini] [mini] [buro] [ceri
       1 0.639 вв s 0.0160 3.08488e5 2.99597e5 95.69755
2 1.345 вв s 0.0170 5812.66943 5220.73828 1.80317
       3 2.088 BB 0.0495 8056.59717 2179.36475 2.49927
                         3.22358e5 3.06997e5
     Totals :
      *** End of Report ***
```

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\086F1901.D
Sample Name: 1
   Seq. Line : 19
   Acq. Operator : Zach Taylor
                                          Location : Vial 86
   Acq. Instrument : Instrument 1
                                               Inj: 1
   Injection Date : 28-May-18, 16:03:35
                                         Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
              : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
              : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                 (modified after loading)
                : Alditol lab.
   Method Info
   FID1 A. (ZACH2018\ZACH 2018-05-28 14-22-05\086F1901.D)
     Norm.
                        0.639
     300000
     250000
     200000 -
     150000
     100000
     50000
                                         .346
                                                          2.093
        0
                                                          min
                                                                    2.5
                    0.5
                                            1.5
    Area Percent Report
    _____
                         Signal
1.0000
1.0000
    Sorted By
                      :
                    :
    Multiplier
                     :
    Dilution
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                   Height
                                            Area
    Peak RetTime Type Width
                          Area
                                  [pA]
                                             8
                         [pA*s]
     #
        [min]
                   [min]
    _____
         0.639 BB S 0.0166 3.30061e5 3.06644e5 95.45562

        1
        0.639 BB S
        0.0166 3.30061e5 3.06644e5 95.45562

        2
        1.346 BB S
        0.0192 6629.21924 5383 33545 1.91721

      3 2.093 BB 0.0505 9084.06055 2403.58179 2.62717
                         3.45774e5 3.14431e5
    Totals :
    *** End of Report ***
```

Instrument 1 7/6/2018 10:53:23 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\086F2501.D
Sample Name: 1
  Seq. Line : 25
  Acq. Operator : Zach Taylor
                                     Location : Vial 86
  Acq. Instrument : Instrument 1
                                         Inj: 1
  Injection Date : 28-May-18, 16:36:37
                                    Inj Volume : 1 µl
              : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
            : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
   Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
               (modified after loading)
             : Alditol lab.
   Method Info
   _____
        FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\086F2501.D)
     Norm.
                     0.639
    300000
    250000
    200000
    150000
    100000
     50000
                                    .345
                                                   060
       0
                                                      2.5
                                                                    min
          0.5
                                       1.5
   _____
                    Area Percent Report
   Signal
   Sorted By
                   :
                        1.0000
   Multiplier
                   :
                        1.0000
                   :
   Dilution
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
                               Height
                                      Area
    Peak RetTime Type Width
                       Area
                                       8
                              [pA]
                 [min] [pA*s]
     #
       [min]
    0.639 BB S 0.0158 3.06214e5 3.03024e5 95.42613
     1
      2 1.345 BB S 0.0181 6188.34912 5410.24072 1.92849
        2.090 BB 0.0497 8488.80176 2288.03247 2.64538
      3
                      3.20892e5 3.10722e5
    Totals :
    *** End of Report ***
```

Instrument 1 7/6/2018 10:53:26 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\086F3101.D
Sample Name: 1
   Seq. Line : 31
   Acq. Operator : Zach Taylor
                                         Location : Vial 86
   Acq. Instrument : Instrument 1
                                             Inj: 1
   Injection Date : 28-May-18, 17:09:39
                                       Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
               : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                (modified after loading)
               : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\086F3101.D)
                       640
     Norm.
    300000
    250000
    200000
     150000
     100000
     50000
                                       .345
                                                        2.090
        0 -
                                                                   min
           2.5
                                           1.5
                    0.5
    _____
                      Area Percent Report
    _____
                         Signal
    Sorted By
                     :
                          1.0000
                    :
    Multiplier
                          1.0000
    Dilution
                     :
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                  Height
                                          Area
    Peak RetTime Type Width
                          Area
                                           웅
                        [pA*s]
                                  [pA]
                  [min]
     #
        [min]
     # [min] [min] [pA*s] [pA]
      1 0.640 BB S 0.0149 2.82422e5 3.01533e5 95.00449
2 1.345 BB S 0.0156 6248.58545 5895.75684 2.10198
      3 2.090 BB 0.0501 8601.65332 2298.53223 2.89353
                        2.97272e5 3.09728e5
    Totals :
    _____
                        *** End of Report ***
```

Instrument 1 7/6/2018 10:53:29 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\086F3701.D
Sample Name: 1
   Seq. Line : 37
  Acq. Operator : Zach Taylor
                                        Location : Vial 86
  Acq. Instrument : Instrument 1
                                           Inj: 1
   Injection Date : 28-May-18, 17:42:46
                                      Inj Volume : 1 µl
              : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
              : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
              : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                (modified after loading)
              : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\086F3701.D)
                      0.640
     Norm
    300000
    250000
    200000
     150000
     100000
     50000
                                      1.343
                                                      2.084
        0
                                                               2.5
                                                                        min
                               1
                                         1.5
                   0.5
    Area Percent Report
    Signal
    Sorted By
                    :
                         1.0000
                    :
    Multiplier
                         1.0000
    Dilution
                    :
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                         Area
                                 Height
    Peak RetTime Type Width
                         Area
                                          8
                                 [pA]
                       [pA*s]
                  [min]
        [min]
     #
    1 0.640 BB S 0.0140 2.70195e5 2.91467e5 95.36442
2 1.343 BB S 0.0164 5550.09863 5240.25293 1.95889
      3 2.084 BB 0.0501 7583.86865 2061.97705 2.67670
                        2.83329e5 2.98769e5
    Totals :
    *** End of Report ***
```

Instrument 1 7/6/2018 10:53:33 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\086F4301.D
Sample Name: 1
   Acq. Operator : Zach Taylor
                                            Seq. Line : 43
                                             Location : Vial 86
   Acq. Instrument : Instrument 1
                                                 Inj: 1
   Injection Date : 28-May-18, 18:15:50
                                            Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
               : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                  (modified after loading)
                : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\086F4301.D)
                         639
      Norm.
     300000
     250000
     200000
     150000
     100000
      50000
                                           .346
                                                             2.093
        0 -
                                  1
                                                                         min
                                               1.5
                                                                       2.5
                      0.5
    Area Percent Report
    _____
                          Signal
    Sorted By
                       :
                          1.000
                            1.0000
    Multiplier
                      :
    Dilution
                      :
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
    Peak RetTime Type Width
                                     Height
                                              Area
                            Area
                          [pA*s]
                                               웅
                                    [pA]
     #
        [min]
                    [min]
    -----
         0.639 BB S 0.0166 3.33833e5 3.09626e5 95.66224

        1
        0.639 BB S
        0.0166 3.33833e5 3.09626e5 95.66224

        2
        1.346 BB S
        0.0202 6367.44775 5076.90820 1.82464

        3
        2.093 BB
        0.0497 8770.06543 2318.82251 2.51312

                          3.48971e5 3.17022e5
    Totals :
                            _____
    _________________
                          *** End of Report ***
```

Instrument 1 7/6/2018 10:53:37 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\086F4901.D
Sample Name: 1
   Seq. Line : 49
   Acq. Operator : Zach Taylor
                                         Location : Vial 86
   Acq. Instrument : Instrument 1
                                             Inj: 1
   Injection Date : 28-May-18, 18:48:59
                                        Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
               : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
               : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                 (modified after loading)
               : Alditol lab.
   Method Info
   _____
         FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\086F4901.D)
      Norm.
                        9:039
     300000
     250000
     200000
     150000
     100000
                                                         2.094
                                        .346
      50000
                                                                     ·····
                                                         0 -
                                                                  2.5
                                                                            min
                                            1.5
                    0.5
    Area Percent Report
    Signal
                      :
    Sorted By
                     :
                           1.0000
    Multiplier
                           1.0000
    Dilution
                     :
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                           Area
                                   Height
     Peak RetTime Type Width
                          Area
                                   [pA]
                                            $
                         [pA*s]
                   [min]
      # [min]
     π [maxi] [maxi] [gri 0] [gri -]-
                                            -----
      1 0.639 BB S 0.0164 3.24156e5 3.04947e5 95.45405
2 1.346 BB S 0.0195 6501.79590 5441.19580 1.91458
       3 2.094 BB 0.0507 8935.98438 2395.18262 2.63137
                         3.39594e5 3.12783e5
     Totals :
     _____
                          *** End of Report ***
```

Instrument 1 7/6/2018 10:53:41 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\086F5501.D
Sample Name: 1
   Seq. Line : 55
   Acq. Operator : Zach Taylor
                                        Location : Vial 86
   Acq. Instrument : Instrument 1
                                           Inj: 1
   Injection Date : 28-May-18, 19:22:06
                                      Inj Volume : 1 µl
              : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
             : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
              : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                (modified after loading)
               : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\086F5501.D)
                      9.639
     Norm.
     300000
     250000
     200000
     150000
     100000
     50000
                                      345
                                                       092
                                                                  0 -
                                                           -----
                                                               2.5
                                ·····
                                                                         min
                             0.5
                                          1.5
    Area Percent Report
    .
                         Signal
                     :
    Sorted By
                   :
                         1.0000
    Multiplier
                          1.0000
                    :
    Dilution
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                 Height
                                         Area
    Peak RetTime Type Width
                         Area
                                          90
    # [min] [pA*s] [pA] %
      1 0.639 BB S 0.0170 3.40817e5 3.06639e5 95.84919
2 1.345 BB S 0.0203 6198.28613 4907.60156 1.74317
       3 2.092 BB 0.0492 8561.00293 2290.34595 2.40764
                        3.55576e5 3.13837e5
    Totals :
    *** End of Report ***
```

Instrument 1 7/6/2018 10:53:43 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\087F0201.D
Sample Name: 1
   Seq. Line : 2
   Acq. Operator : Zach Taylor
                                        Location : Vial 87
   Acq. Instrument : Instrument 1
                                             Inj: 1
   Injection Date : 28-May-18, 14:28:20
                                       Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
   Last changed : 5/28/2018 4:51:49 AM by Zach Taylor
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
   Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
                (modified after loading)
   Method Info
               : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\087F0201.D)
     Norm.
                       633
     300000
     250000
     200000
     150000
     100000
     50000
                                     250
.348
                                                        2.094
        0 -
                                                                   ·····
                                                                          min
                                                                2.5
           1.5
                    0.5
    _____
                      Area Percent Report
    _____
                          Signal
    Sorted By
                     :
                          1.0000
    Multiplier
                    :
                          1.0000
    Dilution
                     :
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
    Peak RetTime Type Width
                                  Height
                                          Area
                         Area
                                           8
                  [min] [pA*s]
                                 [pA]
     #
        [min]
    -----
      1 0.639 BB S 0.0166 3.28701e5 3.03621e5 95.44628
2 1.250 BV 0.0295 5.90922 2.97847 0.00172
         1.348 VB S 0.0182 6673.36670 5808.96631 1.93777
      3
      4 2.094 BB 0.0505 9002.98242 2340.97070 2.61423
                        3.44384e5 3.11774e5
    Totals :
    *** End of Report ***
                                                               Page 1 of 1
 Instrument 1 7/6/2018 10:53:48 PM Zach Taylor
```

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\087F0801.D
Sample Name: 1
   8
                                         Seq. Line :
   Acq. Operator : Zach Taylor
                                            Location : Vial 87
   Acq. Instrument : Instrument 1
   Injection Date : 28-May-18, 15:01:24
                                                Inj: 1
                                         Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
   Last changed : 5/28/2018 4:51:49 AM by Zach Taylor
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
   Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
                 (modified after loading)
   Method Info
                : Alditol lab.
   FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\087F0801.D)
     Norm.
                        9:639
     300000
     250000
     200000
     150000 -
     100000
     50000
                                         .348
                                                           2.092
        0
                                                                       T-----
           2.5
                    0.5
                                             1.5
                                 1
   Area Percent Report
   Signal
   Sorted By
                     :
                         1.0000
   Multiplier
                     :
                   :
   Dilution
                           1.0000
   Use Multiplier & Dilution Factor with ISTDs
   Signal 1: FID1 A,
                                   Height
                                            Area
    Peak RetTime Type Width
                         Area
                   [min] [pA*s]
                                  [pA]
                                             olo
     # [min]
    1 0.639 BB S 0.0174 3.38206e5 3.13025e5 95.89218

        2
        1.348
        BB S
        0.0210
        6059.97070
        4853.24512
        1.71820

        3
        2.092
        BB
        0.0518
        8428.04980
        2166.76855
        2.38962

    Totals :
                         3.52694e5 3.20045e5
    *** End of Report ***
```

Instrument 1 7/6/2018 10:53:50 PM Zach Taylor

Page 1 of 1

min

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\087F1401.D
Sample Name: 1
   _____
                                       Seq. Line : 14
   Acq. Operator : Zach Taylor
                                        Location : Vial 87
   Acq. Instrument : Instrument 1
                                            Inj: 1
   Injection Date : 28-May-18, 15:34:28
                                       Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
              : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
             : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                (modified after loading)
               : Alditol lab.
   Method Info
   _____
         FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\087F1401.D)
                      639
     Norm.
     300000
     250000
     200000
     150000
     100000
      50000
                                      .347
                                                       2.093
        0
                                                               2.5
                                                                         min
           1.5
                   0.5
    Area Percent Report
    _____
                          Signal
    Sorted By
                     .
                        1.0000
    Multiplier
                    :
                          1.0000
                    .
    Dilution
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                  Height
                                          Area
    Peak RetTime Type Width
                         Area
                                 [pA]
                                          8
                        [pA*s]
                   [min]
      #
        [min]
    1 0.639 BB S 0.0162 3.22973e5 3.07920e5 95.58102
2 1.347 BB S 0.0184 6306.51123 5416.72852 1.86636
         2.093 BB 0.0515 8625.44531 2192.62354 2.55263
       3
                        3.37905e5 3.15530e5
    Totals :
    *** End of Report ***
```

Instrument 1 7/6/2018 10:53:52 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\087F2001.D
Sample Name: 1
   Seq. Line : 20
   Acq. Operator : Zach Taylor
                                            Location : Vial 87
   Acq. Instrument : Instrument 1
                                                 Inj: 1
   Injection Date : 28-May-18, 16:07:34
                                           Inj Volume : 1 µl
                : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
               : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
   Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
                  (modified after loading)
                : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\087F2001.D)
      Norm.
     300000
     250000
     200000
     150000
     100000
      50000
                                          347
                                                             2.092
        0
            2.5
                                                                                 min
                     0.5
                                              1.5
    Area Percent Report
    Signal
    Sorted By
                      .
                            1.0000
    Multiplier
                      :
                            1.0000
    Dilution
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                     Height
                                             Area
    Peak RetTime Type Width
                           Area
                                              8
                         [pA*s]
                                    [pA]
                    [min]
     # [min]
    1 0.639 BB S 0.0159 3.05394e5 2.99732e5 95.38860

        2
        1.347
        BB
        S
        0.0156
        6274.26416
        5891.72998
        1.95974

        3
        2.092
        BB
        0.0535
        8489.51660
        2175.15405
        2.65166

                          3.20158e5 3.07799e5
    Totals :
    *** End of Report ***
```

Instrument 1 7/6/2018 10:53:56 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\087F2601.D Sample Name: 1 Seq. Line : 26 Acq. Operator : Zach Taylor Location : Vial 87 Acq. Instrument : Instrument 1 Inj: 1 Injection Date : 28-May-18, 16:40:35 Inj Volume : 1 µl : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M Acq. Method : 5/28/2018 4:51:49 AM by Zach Taylor Last changed Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) : Alditol lab. Method Info FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\087F2601.D) Norm 9:639 300000 250000 200000 150000 100000 50000 348 2.095 0 ····· 1······ 1····· 1····· ······················· 2.5 min 0.5 1.5 Area Percent Report Signal Sorted By : 1.0000 : Multiplier : 1.0000 Dilution Use Multiplier & Dilution Factor with ISTDs Signal 1: FID1 A, Peak RetTime Type Width Area Height Area olo [pA] [min] [pA*s] # [min]
 1
 0.639 BB
 0.0177 3.42581e5
 3.10258e5
 95.71803

 2
 1.348 BB
 0.0214 6444.61523 5021.18115
 1.80064

 3
 2.095 BB
 0.0524 8880.83594 2252.35864
 2.48133
 3.57906e5 3.17532e5 Totals : *** End of Report ***

Instrument 1 7/6/2018 10:54:00 PM Zach Taylor

```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\087F3201.D
   Sample Name: 1
                                       Seq. Line : 32
   Acq. Operator : Zach Taylor
                                        Location : Vial 87
   Acq. Instrument : Instrument 1
                                             Inj: 1
   Injection Date : 28-May-18, 17:13:39
                                       Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
              : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
              : 7/6/2018 9:23:05 PM by Zach Taylor
   Last changed
                 (modified after loading)
               : Alditol lab.
   Method Info
   _____
         FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\087F3201.D)
                       639
     Norm.
     300000
     250000
     200000
     150000
     100000
                                                        093
                                       .347
      50000
                                                        ~i
                                                                    -1------1-----1---
        0
                                                                 2.5
                                                                           min
                                           1 5
                    0.5
    _____
                       Area Percent Report
     -
                           Signal
                     .
    Sorted By
                          1.0000
    Multiplier
                     :
                           1.0000
                     .
     Dilution
     Use Multiplier & Dilution Factor with ISTDs
     Signal 1: FID1 A,
                                           Area
                                   Height
     Peak RetTime Type Width
                          Area
                                            8
                                   [pA]
                   [min] [pA*s]
     π (maii) (maii) (gen 2) (gen 2)
      # [min]
          0.639 BB S 0.0158 3.12507e5 3.08116e5 95.54941
       1
       2 1.347 BB S 0.0180 6059.07764 5368.95020 1.85257
          2.093 BB 0.0543 8497.18164 2143.28442 2.59802
       3
                         3.27064e5 3.15628e5
     Totals :
     ______
                         *** End of Report ***
```

Instrument 1 7/6/2018 10:54:04 PM Zach Taylor

Instrument 1 7/6/2018 10:54:06 PM Zach Taylor

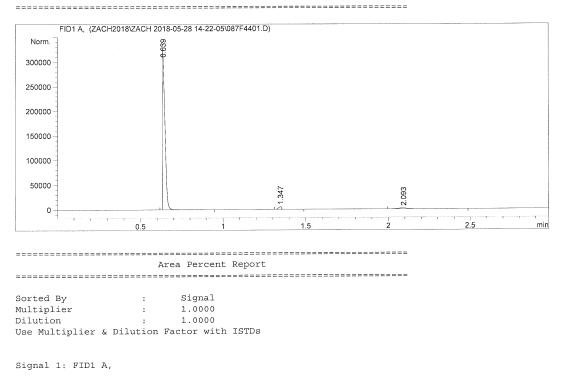
```
Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\087F3801.D
Sample Name: 1
   _____
                                          Seq. Line : 38
   Acq. Operator : Zach Taylor
                                           Location : Vial 87
   Acq. Instrument : Instrument 1
   Injection Date : 28-May-18, 17:46:46
                                               Inj: 1
                                          Inj Volume : 1 µl
               : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M
   Acq. Method
               : 5/28/2018 4:51:49 AM by Zach Taylor
   Last changed
   Analysis Method : C:\CHEM32\1\METHODS\Z4.M
   Last changed : 7/6/2018 9:23:05 PM by Zach Taylor
                 (modified after loading)
               : Alditol lab.
   Method Info
   FID1 A, (ZACH2018\ZACH 2018-05-28 14-22-05\087F3801.D)
                        0.639
     Norm
     300000
     250000
     200000
     150000
     100000
      50000
                                         .346
                                                           060
        0
                                                             2.5
                                                                              min
            15
                     0.5
    _____
                        Area Percent Report
    _____
                           Signal
    Sorted By
                      :
                          1.0000
                     :
    Multiplier
                           1.0000
    Dilution
                     :
    Use Multiplier & Dilution Factor with ISTDs
    Signal 1: FID1 A,
                                             Area
                                    Height
    Peak RetTime Type Width
                           Area
                         [pA*s]
                                    [pA]
                                             8
                   [min]
      # [min]
    1 0.639 BB S 0.0154 2.89905e5 2.97909e5 95.41505

        2
        1.346 BB S
        0.0168 5870.27344 5362.91309
        1.93205

        3
        2.090 BB
        0.0530 8060.42969 2054.97046
        2.65289

                         3.03836e5 3.05327e5
    Totals :
     _____
                          *** End of Report ***
```

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\087F4401.D Sample Name: 1 Acq. Operator : Zach Taylor Seq. Line : 44 Acq. Instrument : Instrument 1 Location : Vial 87 Inj: 1 Injection Date : 28-May-18, 18:19:52 Inj Volume : 1 µl Acq. Method : C:\Chem32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\Z3.M Last changed : 5/28/2018 4:51:49 AM by Zach Taylor Analysis Method : C:\CHEM32\1\METHODS\Z4.M Last changed : 7/6/2018 9:23:05 PM by Zach Taylor (modified after loading) Method Info : Alditol lab.



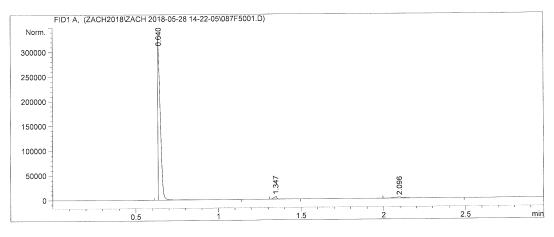
Peak 1	RetTime	Туре	Width	Area	Height	Area
#	[min]		[min]	[pA*s]	[pA]	8
1	0.639	BB S	0.0161	3.16253e5	3.05401e5	95.61415
2	1.347	BB S	0.0173	6062.37598	5304.94482	1.83286
3	2.093	BB	0.0524	8444.26855	2142.81104	2.55299
Total	s :			3.30760e5	3.12849e5	

*** End of Report ***

Instrument 1 7/6/2018 10:54:10 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\087F5001.D Sample Name: 1

Acq. Operator	:	Zach Taylor	Seq. Line : 50	
Acq. Instrument	:	Instrument 1	Location : Vial 87	
Injection Date	:	28-May-18, 18:53:01	Inj : 1	
2			Inj Volume : 1 µl	
Acq. Method	:	C:\Chem32\1\DATA\ZACH201	8\ZACH 2018-05-28 14-22-05\Z3.M	
Last changed		5/28/2018 4:51:49 AM by		
Analysis Method	:	C:\CHEM32\1\METHODS\Z4.M		
Last changed	:	7/6/2018 9:23:05 PM by Z	ach Taylor	
-		(modified after loading)		
Method Info	:	Alditol lab.		



Area Percent Report

Sorted By : Signal Multiplier : 1.0000

Dilution : 1.0000 Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A,

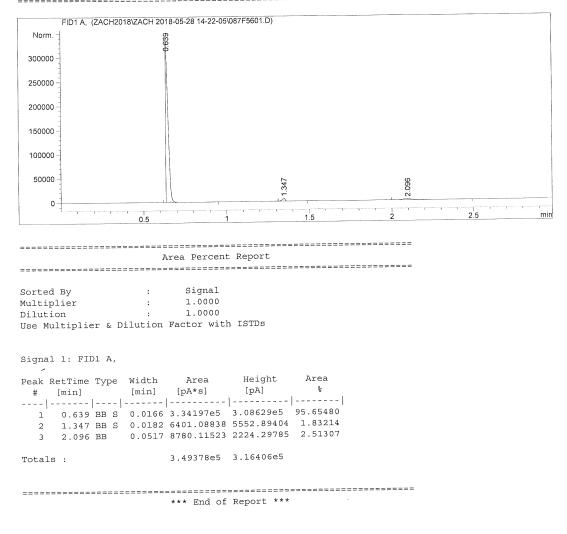
#	etTime [min]		[min]	Area [pA*s]	Height [pA]	Area %
			-			
ı	0.640			3.21885e5		95.40207
2	1.347	BB \$	s 0.0195	6498.93848	5471.98828	1.92619
3	2.096	BB	0.0528	9014.37305	2265.28809	2.67173
Totals	5 :			3.37398e5	3.20479e5	

*** End of Report ***

Instrument 1 7/6/2018 10:54:13 PM Zach Taylor

Data File C:\CHEM32\1\DATA\ZACH2018\ZACH 2018-05-28 14-22-05\087F5601.D Sample Name: 1

Acg. Operator	:	Zach Taylor	Seq. Line : 56		
Acq. Instrument	:	Instrument 1	Location : Vial 87		
		28-May-18, 19:26:06	Inj : l		
····· j · · ·		-	Inj Volume : 1 µl		
Acq. Method	:	C:\Chem32\1\DATA\ZACH	2018\ZACH 2018-05-28 14-22-05\Z3.M		
Last changed	:	5/28/2018 4:51:49 AM	by Zach Taylor		
Analysis Method	:	C:\CHEM32\1\METHODS\Z	4 . M		
Last changed					
		(modified after loadi:	ng)		
Method Info	:	Alditol lab.			



Instrument 1 7/6/2018 10:54:17 PM Zach Taylor