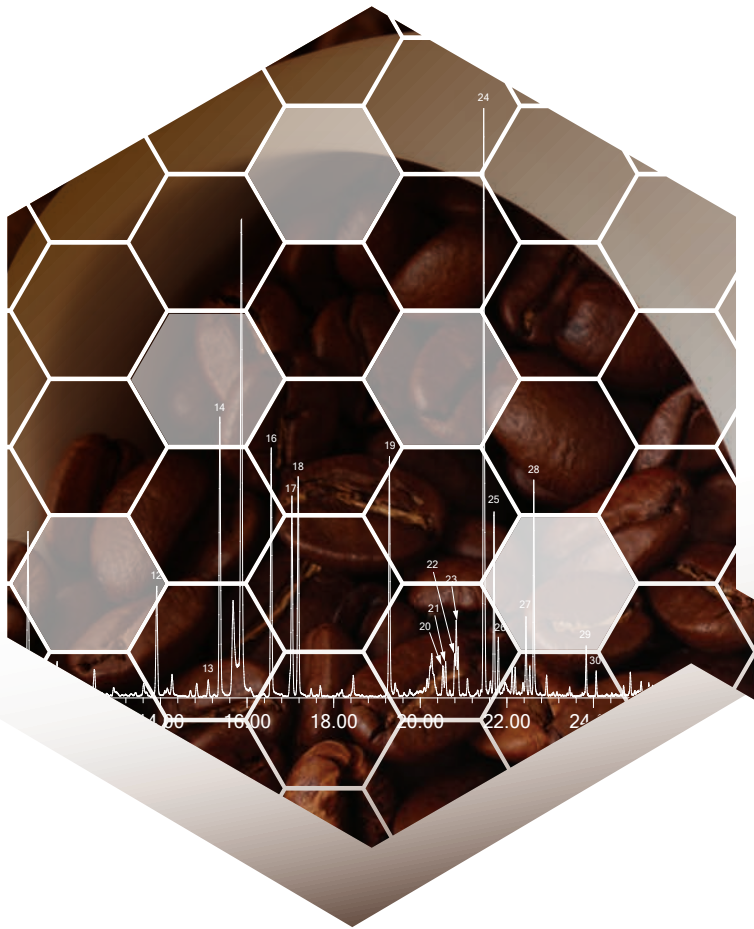


Large Volume Static Headspace

By 7650HS-CTS

Featured Chromatograms



See What's Really There™

White Rose Analysis

TIC: 17011155.D\data.ms

Abundance

700000

600000

500000

400000

300000

200000

100000

Instrument: 7650HS-CTS
Technique: LVSH (Large Volume Static Headspace)
Run date: January 23, 2017
Sample description: White Rose and Stem
Weight of sample (g): NA
Sample conditions: 500mL vial with 4 hour equilibration at 25°C
Sample Amount: 100 cc
Split Mode: Splitless
Column: DB1 60m length x 0.32mm ID, 1.0 µm film
Carrier: He, 2mL/min. constant flow
Oven Temp: 35°C hold 5min., 6°C/min. to 95°C, 10°C/min. to 140°C, 15°C/min. to 230 hold 4.5min.
GCMS: Agilent 7890A/5975C
MS Operation: 33-300 amu, 2.72 scans/sec



- | | |
|--------------------------------|--|
| 1. Chloromethane | 16. beta.-Pinene |
| 2. Acetone | 17. Octanal |
| 3. 1,3-Pentadiene | 18. D-Limonene |
| 4. Acetic acid, methyl ester | 19. beta.-Ocimene |
| 5. 2-Butanone | 20. (+)-4-Carene |
| 6. Furan, 2-methyl- | 21. Nonanal |
| 7. Methane, bromochloro- | 22. Benzene, 1-ethenyl-4-methoxy- |
| 8. Benzene, 1,4-difluoro- | 23. 3,5-Dimethoxytoluene |
| 9. 1-Butanol, 3-methyl- | 24. alpha.-Cubebene |
| 10. Octane | 25. Copaene |
| 11. Chlorobenzene-d5 | 26. (-)-beta.-Bourbonene |
| 12. Anisole | 27. Caryophyllene |
| 13. Benzene, 1-bromo-3-fluoro- | 28. gamma.-Muurolene |
| 14. alpha.-Pinene | 29. beta.-copaene |
| 15. Benzaldehyde | 30. Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-, (1S-cis)- |

*Internal standard

Time--> 4.00 6.00 8.00 10.00 12.00 14.00 16.00 18.00 20.00 22.00 24.00 26.00 28.00

Pink Rose Analysis

TIC: 17011156.D\data.ms

Abundance

180000

160000

140000

120000

100000

80000

60000

40000

Instrument: 7650HS-CTS
Technique: LVSH (Large Volume Static Headspace)
Run date: January 23, 2017
Sample description: Pink Rose and Stem
Weight of sample (g): NA
Sample conditions: 500mL vial with 4 hour equilibration at 25°C
Sample Amount: 100 cc
Split Mode: Splitless
Column: DB1 60m length x 0.32mm ID, 1.0 µm film
Carrier: He, 2mL/min. constant flow
Oven Temp: 35°C hold 5min., 6°C/min. to 95°C, 10°C/min. to 140°C, 15°C/min. to 230 hold 4.5min.
GCMS: Agilent 7890A/5975C
MS Operation: 33-300 amu, 2.72 scans/sec



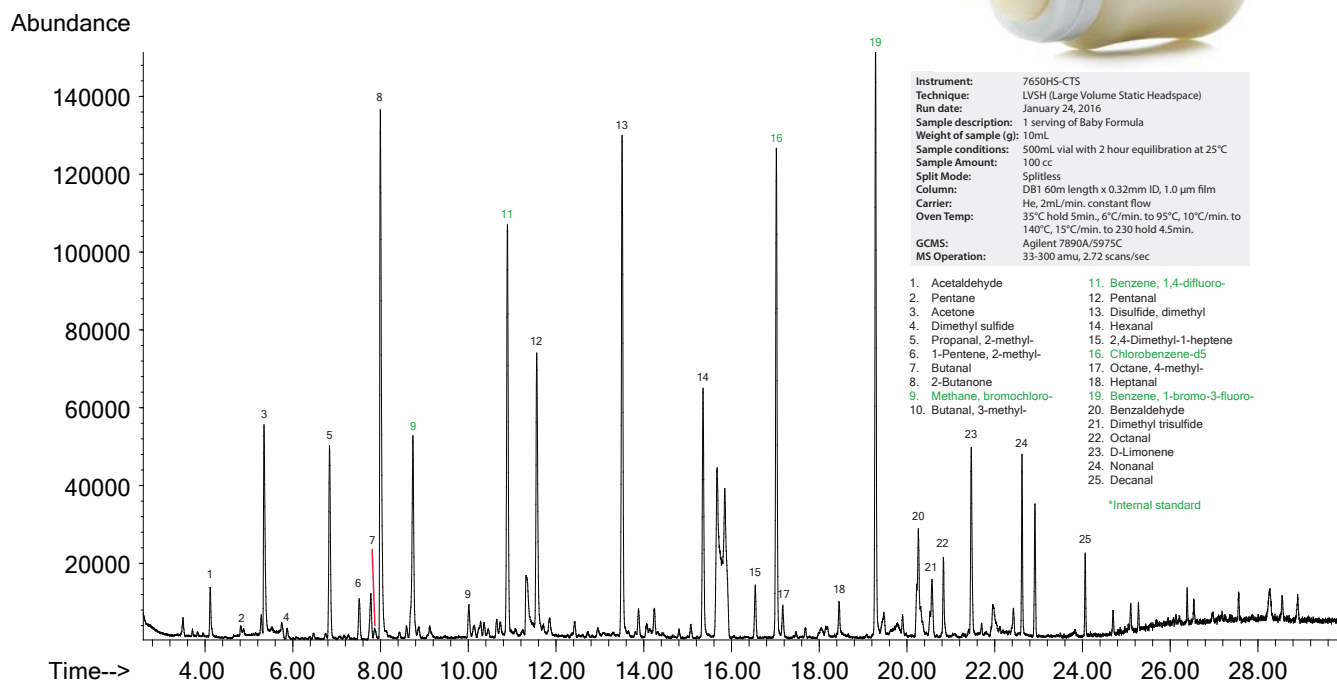
- | | |
|--------------------------------|--|
| 1. Chloromethane | 18. D-Limonene |
| 2. Ethanol | 19. beta.-Ocimene |
| 3. Acetone | 20. 2-Carene |
| 4. 1,3-Butadiene, 2-methyl- | 21. Nonanal |
| 5. Furan, 2-methyl- | 22. Benzene, 1-ethenyl-4-methoxy- |
| 6. Methane, bromochloro- | 23. 3,5-Dimethoxytoluene |
| 7. Benzene, 1,4-difluoro- | 24. alpha.-Cubebene |
| 8. Octane | 25. Copaene |
| 9. Chlorobenzene-d5 | 26. (-)-beta.-Bourbonene |
| 10. Benzene, 1,3-dimethyl- | 27. Caryophyllene |
| 11. Nonane | 28. gamma.-Muurolene |
| 12. Anisole | 29. beta.-copaene |
| 13. Benzene, 1-bromo-3-fluoro- | 30. Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-, (1S-cis)- |
| 14. alpha.-Pinene | |
| 15. Benzaldehyde | |
| 16. beta.-Pinene | |
| 17. Octanal | |

*Internal standard

Time--> 4.00 6.00 8.00 10.00 12.00 14.00 16.00 18.00 20.00 22.00 24.00 26.00 28.00

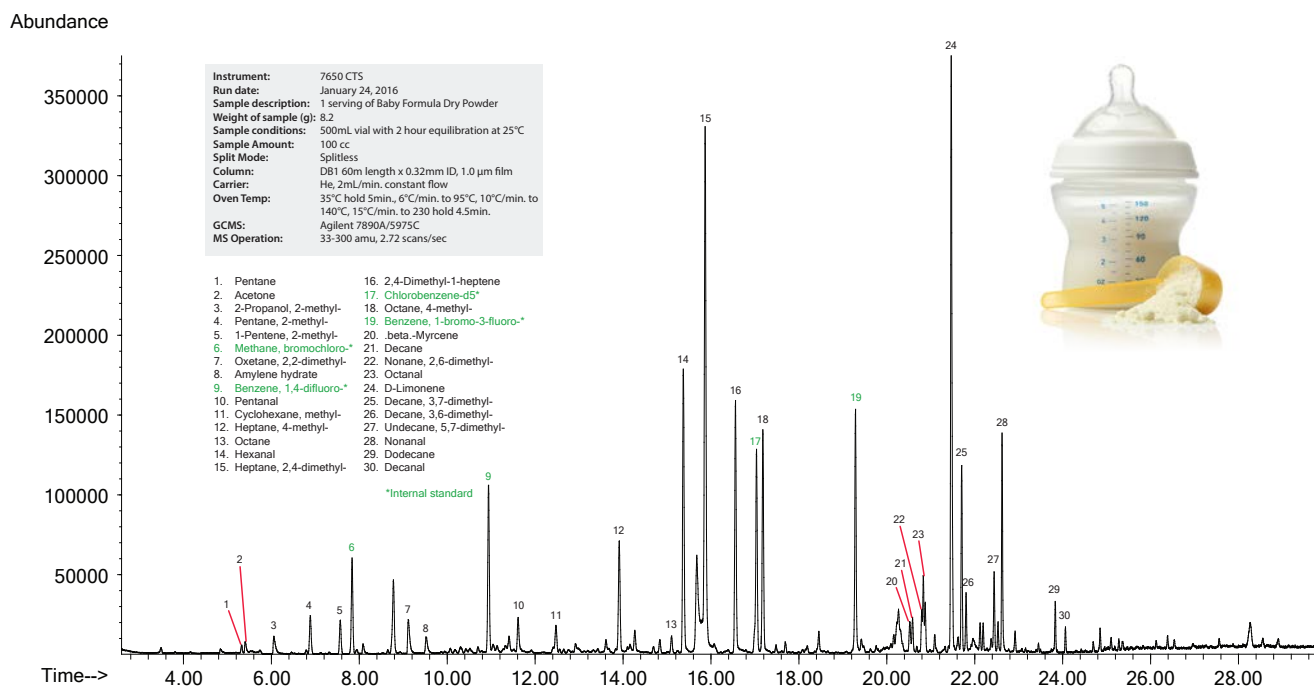
Baby Formula Analysis

TIC: 17011190.D\data.ms



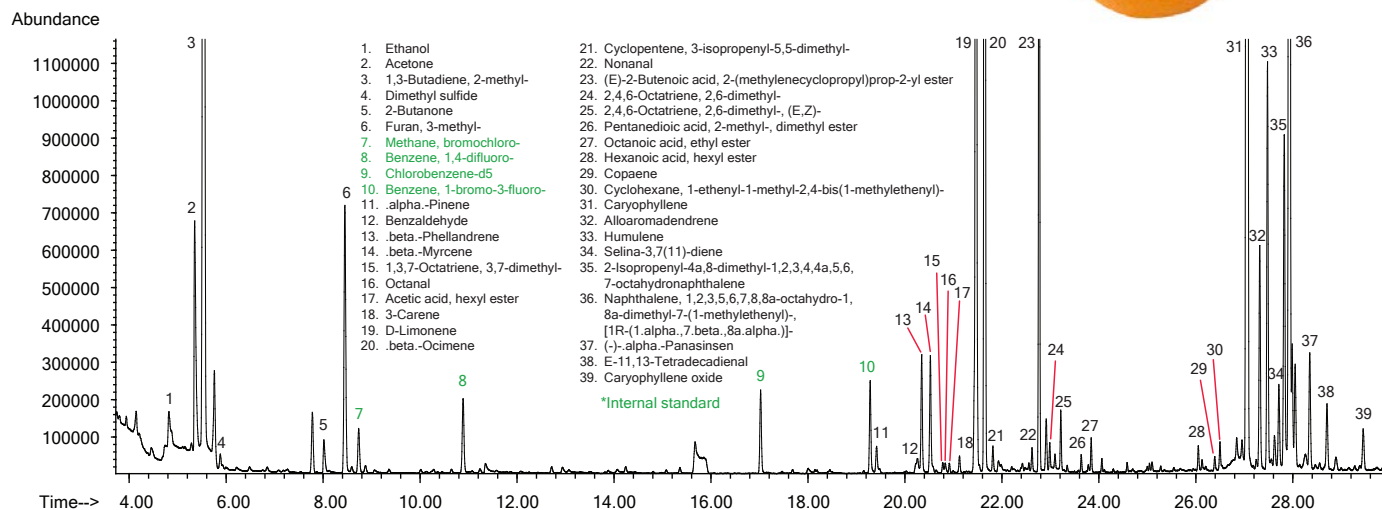
Dry Baby Formula Analysis

TIC: 17011192.D\data.ms



Whole Orange Analysis

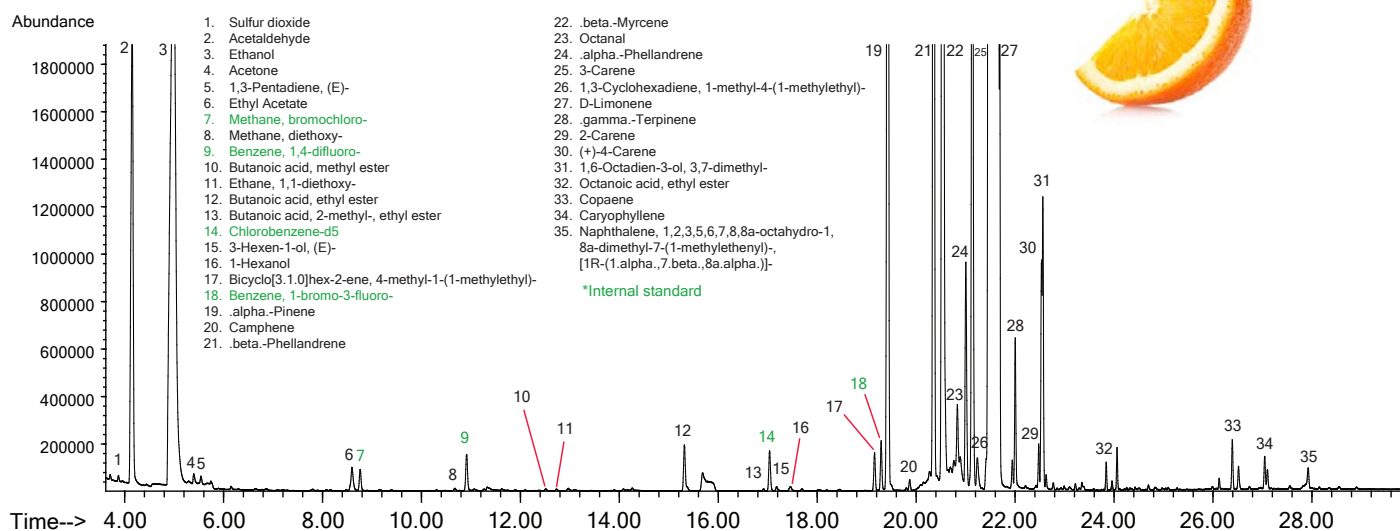
TIC: 17011159.D\data.ms



Instrument: 7650HS-CTS
 Technique: LVSH (Large Volume Static Headspace)
 Run date: January 24, 2016
 Sample description: Whole Orange
 Weight of sample (g): NA
 Sample conditions: 1L vial with 4 hour equilibration at 25°C
 Sample Amount: 250 cc
 Split Mode: Splitless
 Column: DB1 60m length x 0.32mm ID, 1.0 µm film
 Carrier: He, 2mL/min. constant flow
 Oven Temp: 35°C hold 5min., 6°C/min. to 95°C, 10°C/min. to 140°C, 15°C/min. to 230 hold 4.5min.
 GC/MS: Agilent 7890A/5975C
 MS Operation: 33-300 amu, 2.72 scans/sec

Sliced Orange Analysis

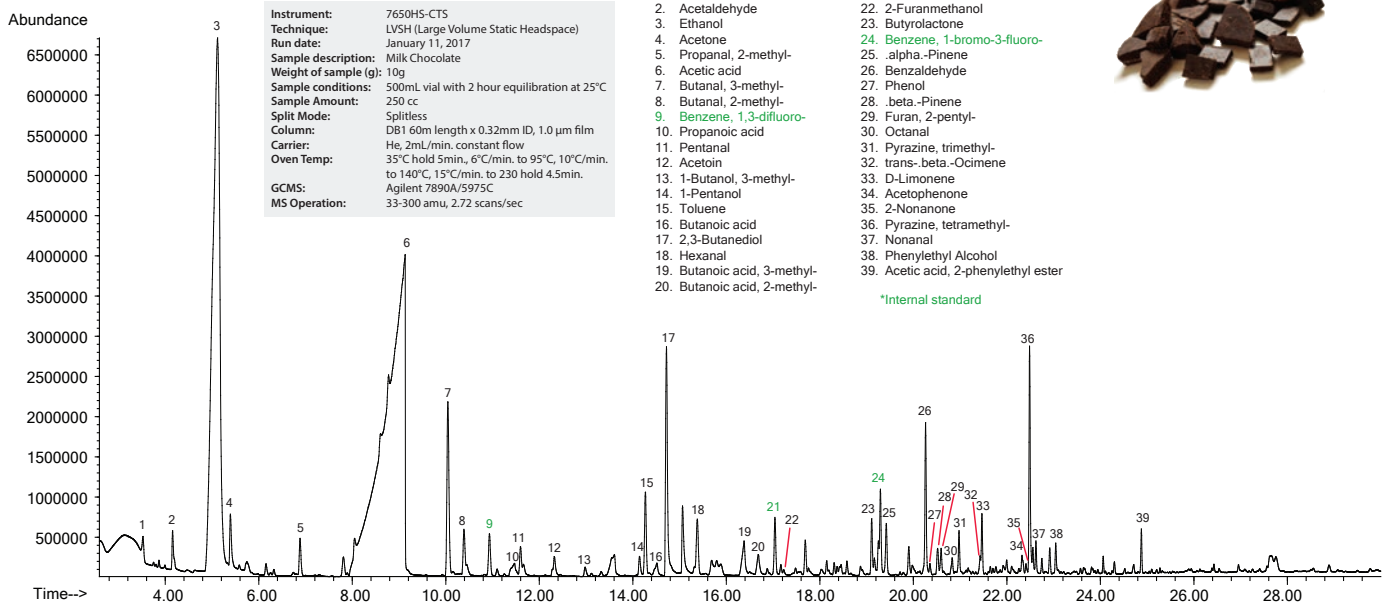
TIC: 17011173.D\data.ms



Instrument: 7650HS-CTS
 Technique: LVSH (Large Volume Static Headspace)
 Run date: January 24, 2016
 Sample description: Sliced Orange
 Weight of sample (g): NA
 Sample conditions: 500mL vial with 4 hour equilibration at 25°C
 Sample Amount: 25 cc
 Split Mode: Splitless
 Column: DB1 60m length x 0.32mm ID, 1.0 µm film
 Carrier: He, 2mL/min. constant flow
 Oven Temp: 35°C hold 5min., 6°C/min. to 95°C, 10°C/min. to 140°C, 15°C/min. to 230 hold 4.5min.
 GC/MS: Agilent 7890A/5975C
 MS Operation: 33-300 amu, 2.72 scans/sec

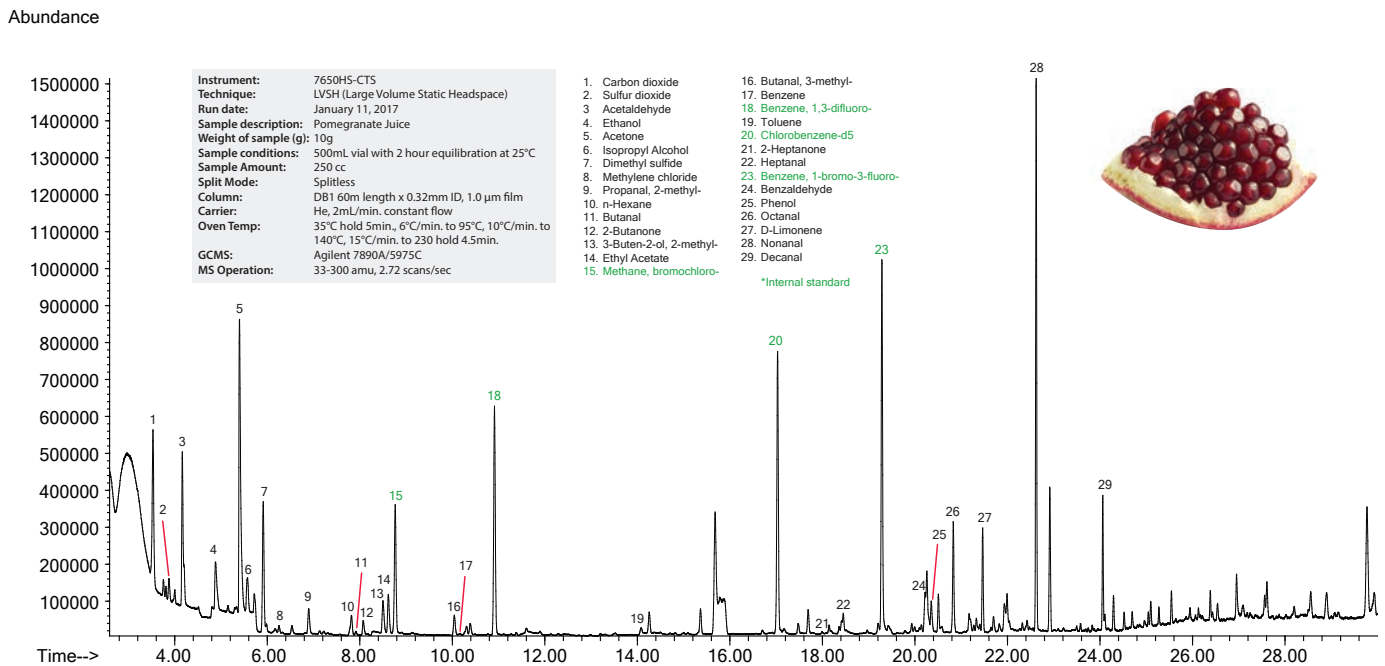
Chocolate Analysis

TIC: 17011107.D\data.ms



Pomegranate Analysis

TIC: 17011103.D\data.ms



Honey Analysis

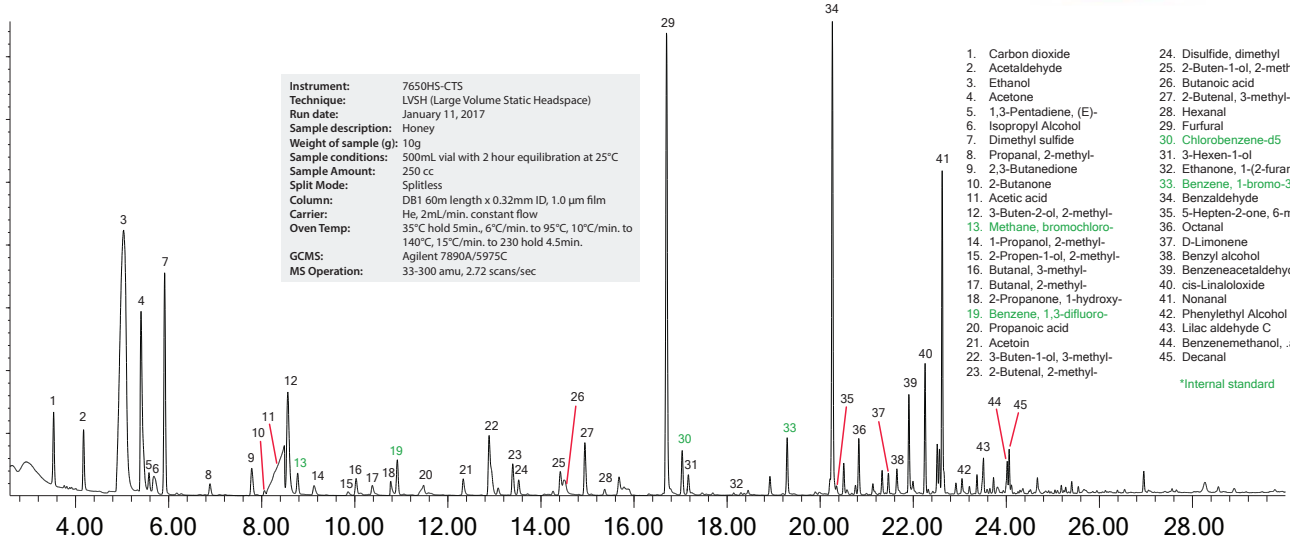
TIC: 17011109.D\data.ms



Abundance

700000
600000
500000
400000
300000
200000
100000

Instrument: 7650HS-CTS
Technique: LVSH (Large Volume Static Headspace)
Run date: January 11, 2017
Sample description: Honey
Weight of sample (g): 10g
Sample conditions: 500mL vial with 2 hour equilibration at 25°C
Sample Amount: 250 cc
Split Mode: Splitless
Column: DB1 60m length x 0.32mm ID, 1.0 µm film
Carrier: He, 2mL/min, constant flow
Oven Temp: 35°C hold 5min., 6°C/min. to 95°C, 10°C/min. to 140°C, 15°C/min. to 230 hold 4.5min.
GCMS: Agilent 7890A/5975C
MS Operation: 33-300 amu, 2.72 scans/sec



- | | |
|------------------------------|---|
| 1. Carbon dioxide | 24. Disulfide, dimethyl |
| 2. Acetaldehyde | 25. 2-Buten-1-ol, 2-methyl- |
| 3. Ethanol | 26. Butanoic acid |
| 4. Acetone | 27. 2-Butenal, 3-methyl- |
| 5. 1,3-Pentadiene, (E)- | 28. Hexanal |
| 6. Isopropyl Alcohol | 29. Furfural |
| 7. Dimethyl sulfide | 30. Chlorobenzene-d5 |
| 8. Propanal, 2-methyl- | 31. 3-Hexen-1-ol |
| 9. 2,3-Butanedione | 32. Ethanone, 1-(2-furyl)- |
| 10. 2-Butanone | 33. Benzene, 1-bromo-3-fluoro- |
| 11. Acetic acid | 34. Benzaldehyde |
| 12. 3-Buten-2-ol, 2-methyl- | 35. 5-Hepten-2-one, 6-methyl- |
| 13. Methane, bromochloro- | 36. Octanal |
| 14. 1-Propanol, 2-methyl- | 37. D-Limonene |
| 15. 2-Propen-1-ol, 2-methyl- | 38. Benzyl alcohol |
| 16. Butanal, 3-methyl- | 39. Benzeneacetaldehyde |
| 17. Butanal, 2-methyl- | 40. cis-Linaloloxide |
| 18. 2-Propanone, 1-hydroxy- | 41. Nonanal |
| 19. Benzene, 1,3-difluoro- | 42. Phenylethyl Alcohol |
| 20. Propanoic acid | 43. Lilac aldehyde C |
| 21. Acetoin | 44. Benzenemethanol, .alpha.,.alpha.,.alpha.,4-trimethyl- |
| 22. 3-Buten-1-ol, 3-methyl- | 45. Decanal |
| 23. 2-Butenal, 2-methyl- | |
- *Internal standard

Rum 1 Analysis

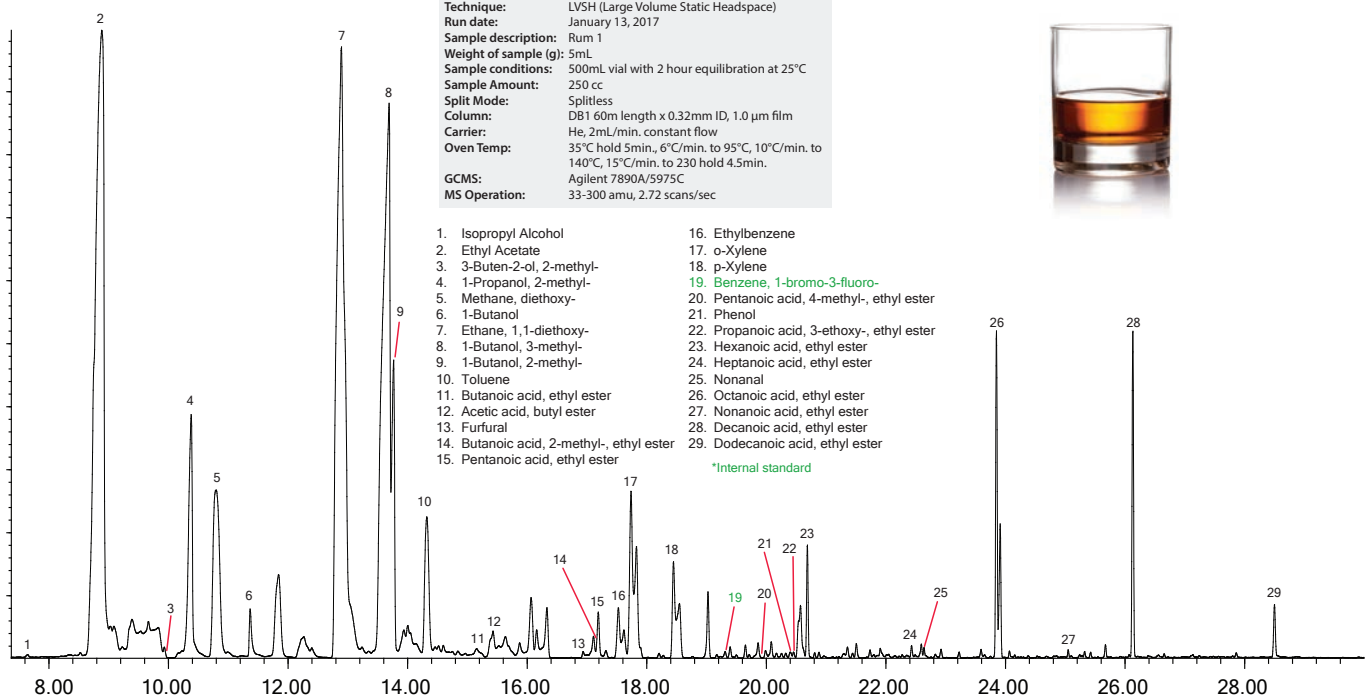
TIC: 17011118.D\data.ms



Abundance

900000
800000
700000
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500000
400000
300000
200000
100000

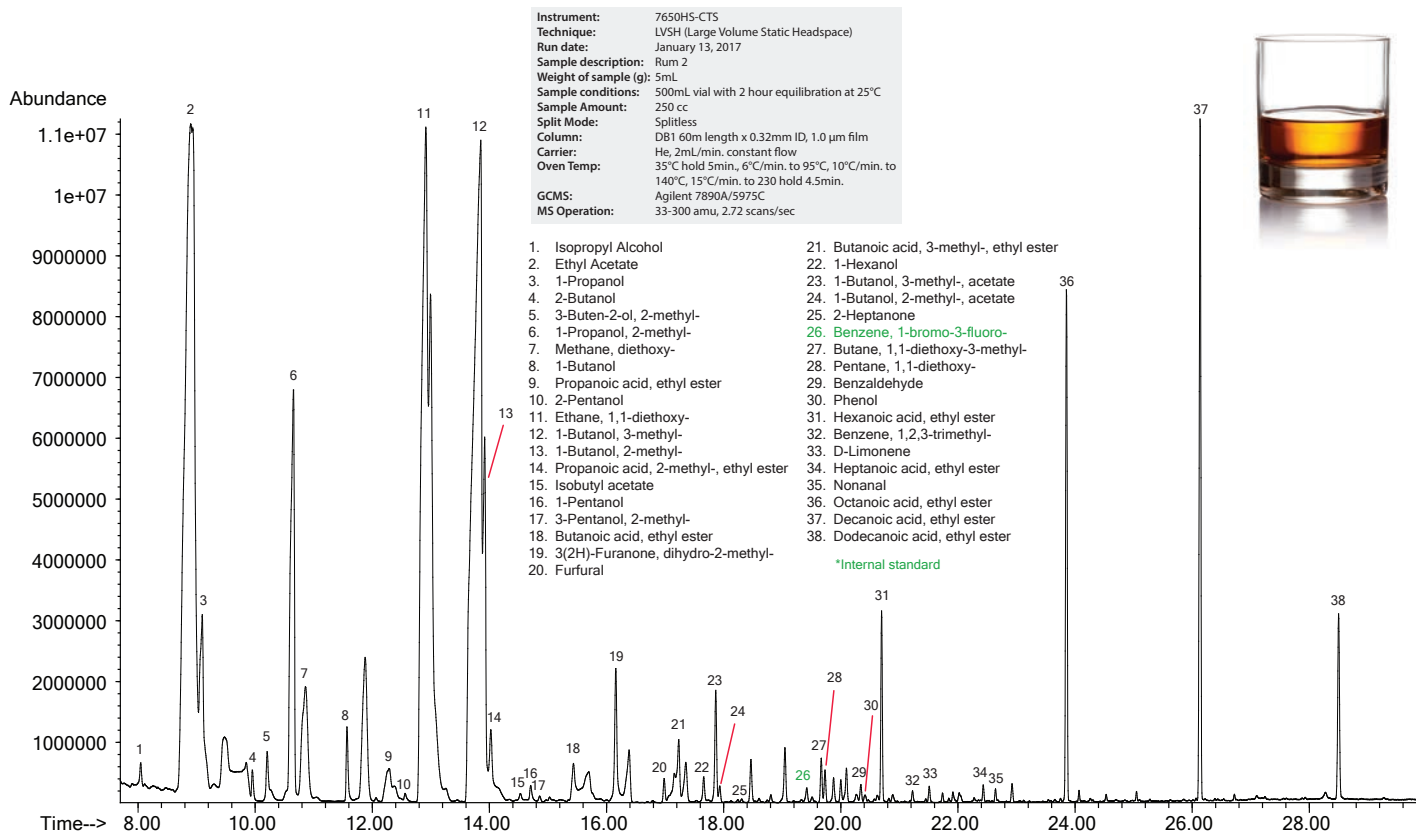
Instrument: 7650HS-CTS
Technique: LVSH (Large Volume Static Headspace)
Run date: January 13, 2017
Sample description: Rum 1
Weight of sample (g): 5mL
Sample conditions: 500mL vial with 2 hour equilibration at 25°C
Sample Amount: 250 cc
Split Mode: Splitless
Column: DB1 60m length x 0.32mm ID, 1.0 µm film
Carrier: He, 2mL/min, constant flow
Oven Temp: 35°C hold 5min., 6°C/min. to 95°C, 10°C/min. to 140°C, 15°C/min. to 230 hold 4.5min.
GCMS: Agilent 7890A/5975C
MS Operation: 33-300 amu, 2.72 scans/sec



- | | |
|---|--|
| 1. Isopropyl Alcohol | 16. Ethylbenzene |
| 2. Ethyl Acetate | 17. o-Xylene |
| 3. 3-Buten-2-ol, 2-methyl- | 18. p-Xylene |
| 4. 1-Propanol, 2-methyl- | 19. Benzene, 1-bromo-3-fluoro- |
| 5. Methane, diethoxy- | 20. Pentanoic acid, 4-methyl-, ethyl ester |
| 6. 1-Butanol | 21. Phenol |
| 7. Ethane, 1,1-diethoxy- | 22. Propanoic acid, 3-ethoxy-, ethyl ester |
| 8. 1-Butanol, 3-methyl- | 23. Hexanoic acid, ethyl ester |
| 9. 1-Butanol, 2-methyl- | 24. Heptanoic acid, ethyl ester |
| 10. Toluene | 25. Nonanal |
| 11. Butanoic acid, ethyl ester | 26. Octanoic acid, ethyl ester |
| 12. Acetic acid, butyl ester | 27. Nonanoic acid, ethyl ester |
| 13. Furfural | 28. Decanoic acid, ethyl ester |
| 14. Butanoic acid, 2-methyl-, ethyl ester | 29. Dodecanoic acid, ethyl ester |
| 15. Pentanoic acid, ethyl ester | |
- *Internal standard

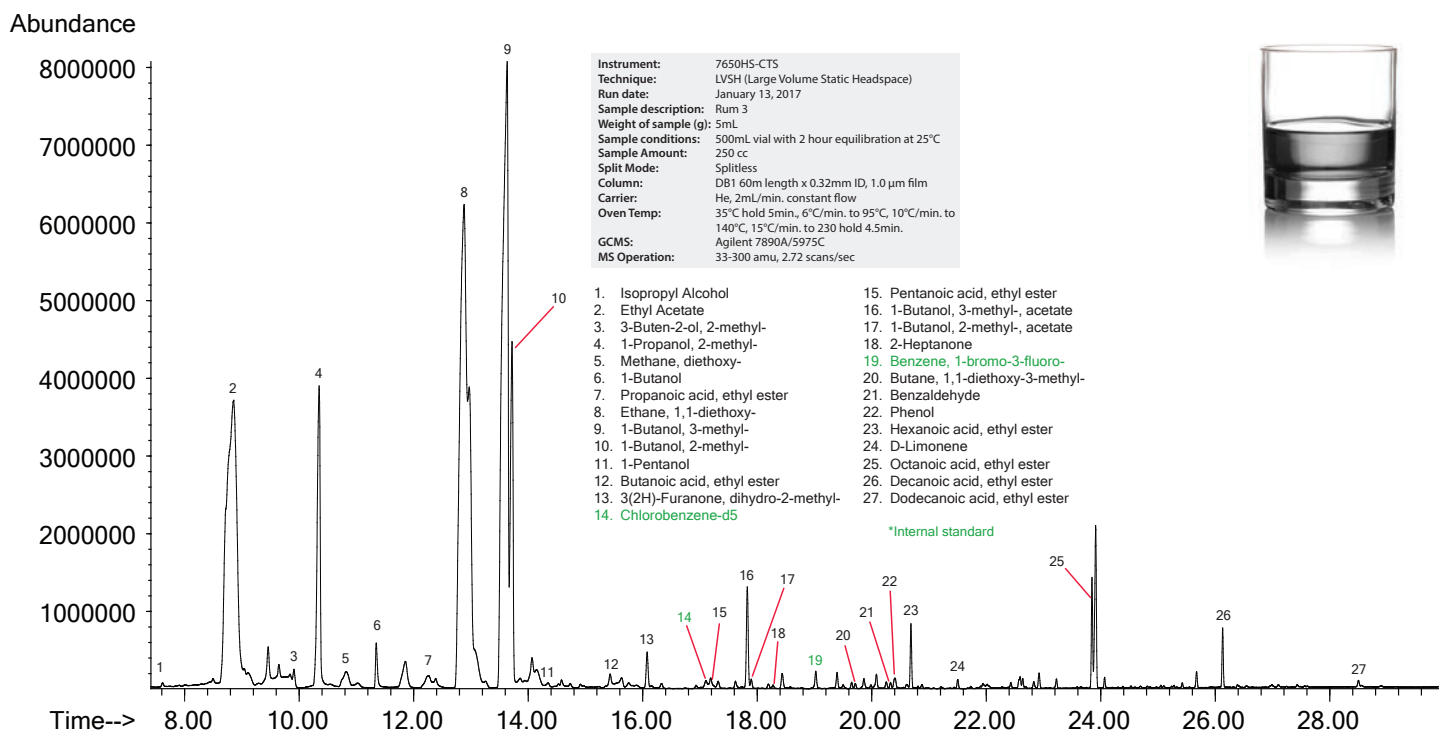
Rum 2 Analysis

TIC: 17011116.D\data.ms



Rum 3 Analysis

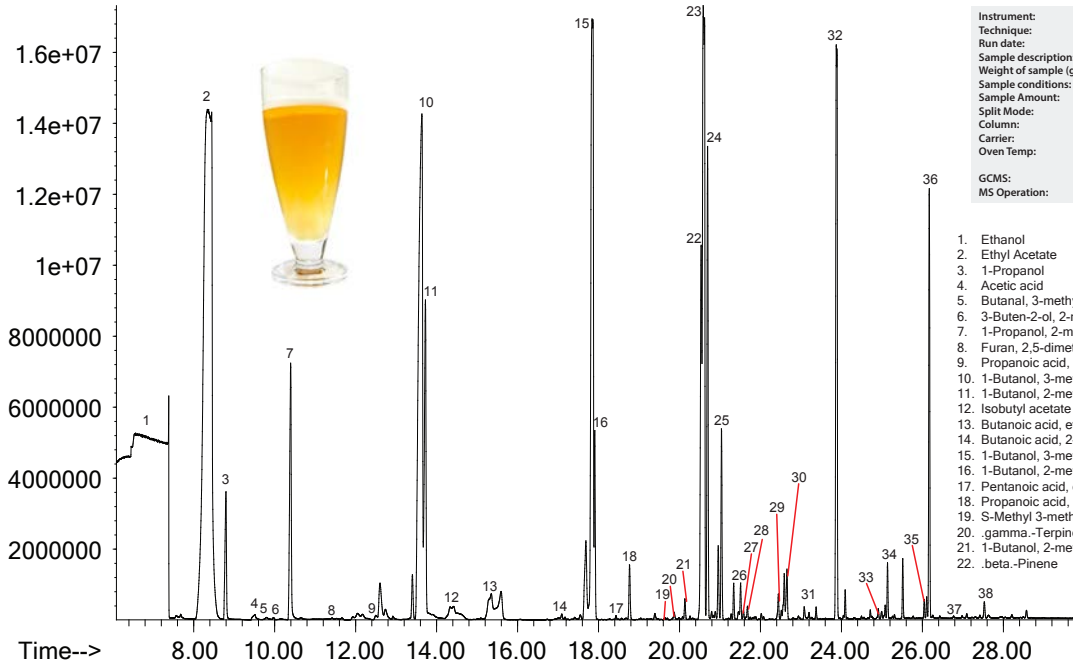
TIC: 17011117.D\data.ms



Blonde Ale Analysis

TIC: 17040743.D\data.ms

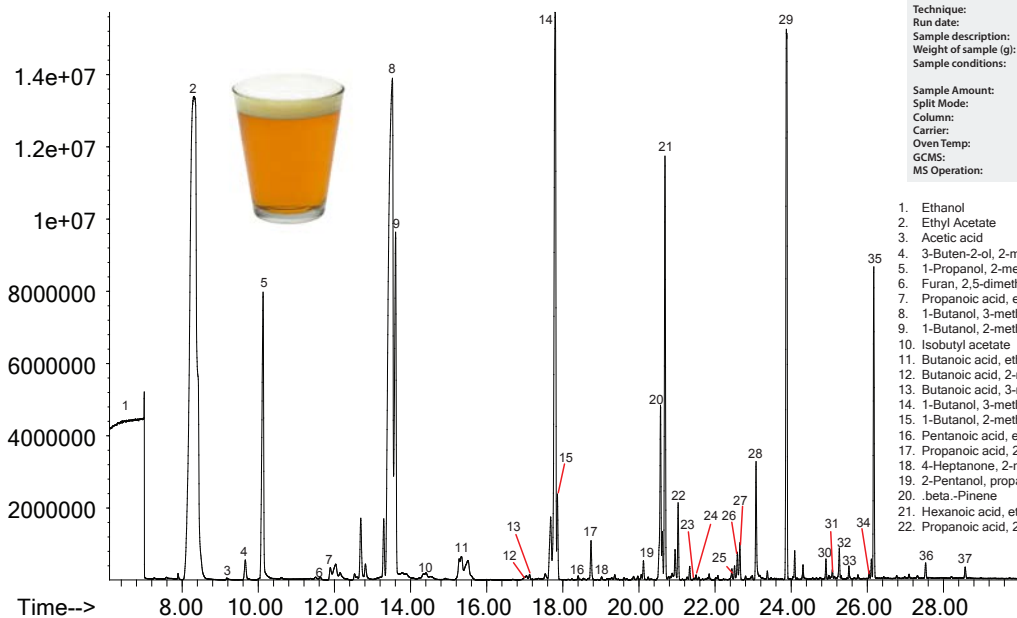
Abundance



Pale Ale Analysis

TIC: 17040747.D\data.ms

Abundance



Pickle Analysis

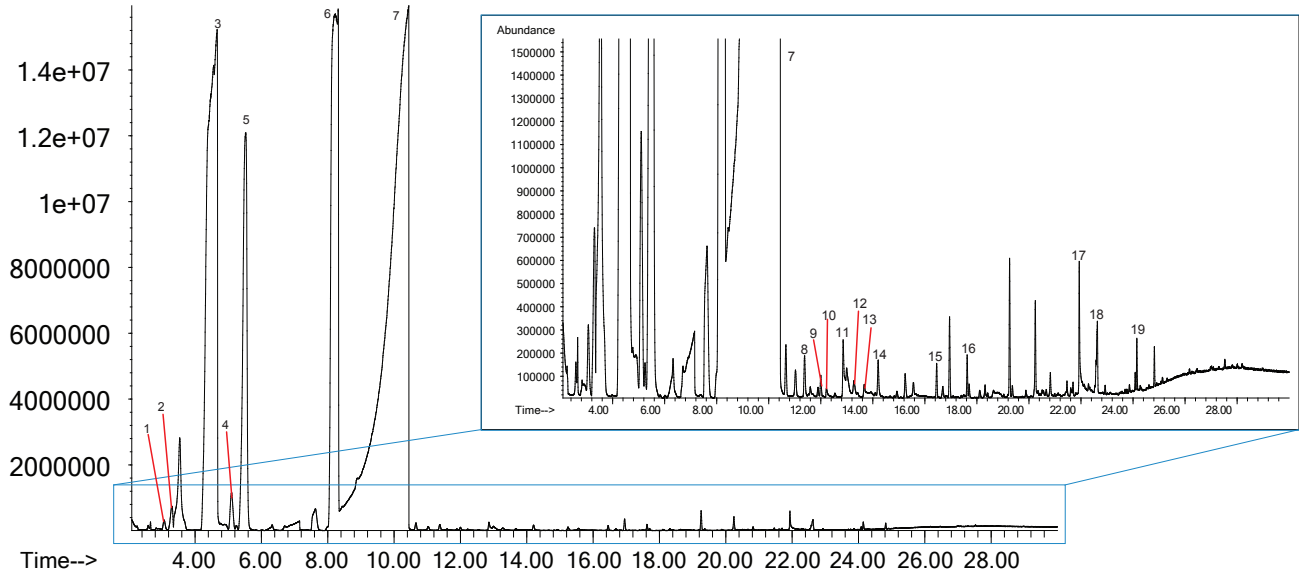
TIC: 17040766.D\data.ms

Instrument: 7650HS-CTS
 Technique: LVSH (Large Volume Static Headspace)
 Run date: April 26, 2017
 Sample description: Whole Pickle
 Weight of sample (g): 11.5g
 Sample conditions: 500mL vial with 2 hour equilibration at 25°C
 Sample Amount: 100 cc
 Split Mode: Splitless
 Column: DB1 60m length x 0.32mm ID, 1.0 µm film
 Carrier: He, 2mL/min, constant flow
 Oven Temp: 35°C hold 5min., 6°C/min. to 95°C, 10°C/min. to 140°C, 15°C/min. to 230 hold 4.5min.
 GCMS: Agilent 7890A/5975C
 MS Operation: 33-300 amu, 2.72 scans/sec

1. Sulfur dioxide
2. Acetaldehyde
3. Ethanol
4. Dimethyl sulfide
5. Acetic acid, methyl ester
6. Ethyl Acetate
7. Acetic acid
8. Pentanal
9. n-Propyl acetate
10. Acetoin
11. 1-Butanol, 3-methyl-
12. Pentane, 2,3,3-trimethyl-
13. Heptane, 4-methyl-
14. Isobutyl acetate
15. 2,4-Dimethyl-1-heptene
16. 1-Butanol, 3-methyl-, acetate
17. Heptanoic acid
18. Benzaldehyde, 4-methyl-
19. L-alpha-Terpineol



Abundance



Garlic Analysis

TIC: 17040726.D\data.ms

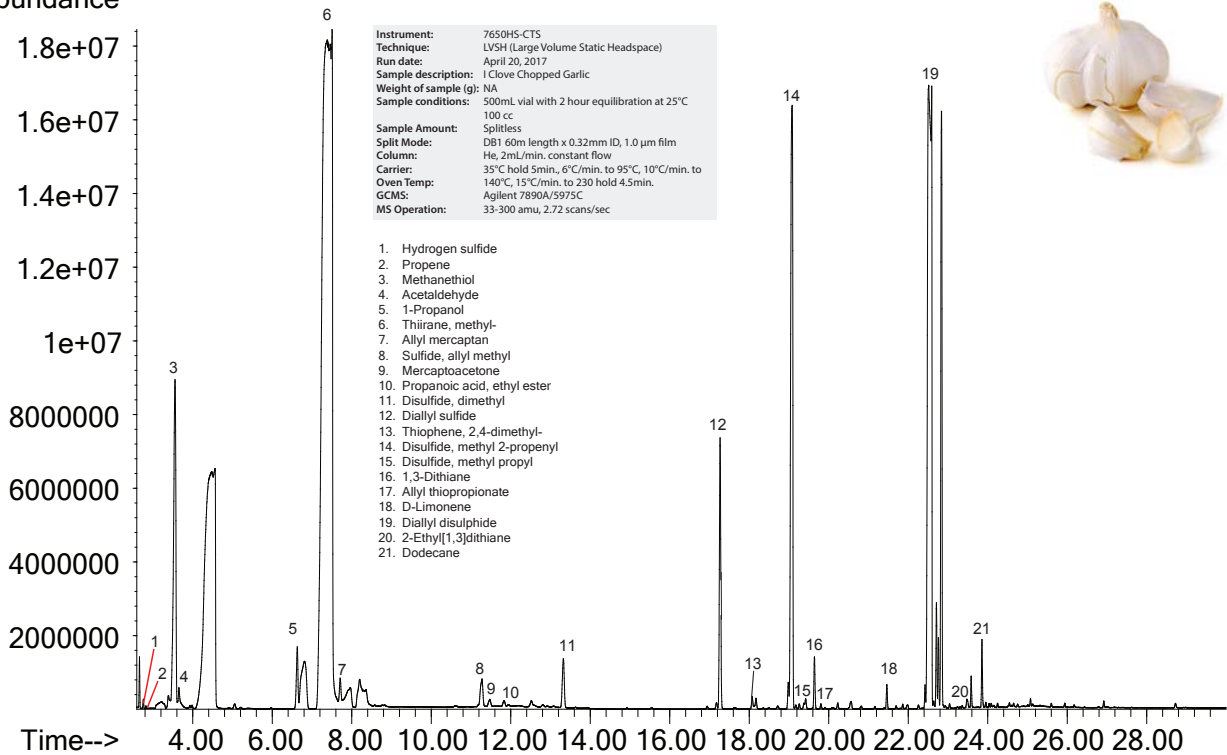
Instrument: 7650HS-CTS
 Technique: LVSH (Large Volume Static Headspace)

Instrument: 7650HS-CTS
 Technique: LVSH (Large Volume Static Headspace)
 Run date: April 20, 2017
 Sample description: 1 Clove Chopped Garlic
 Weight of sample (g): NA
 Sample conditions: 500mL vial with 2 hour equilibration at 25°C
 Sample Amount: 100 cc
 Split Mode: Splitless
 Column: DB1 60m length x 0.32mm ID, 1.0 µm film
 Carrier: He, 2mL/min, constant flow
 Oven Temp: 35°C hold 5min., 6°C/min. to 95°C, 10°C/min. to 140°C, 15°C/min. to 230 hold 4.5min.
 GCMS: Agilent 7890A/5975C
 MS Operation: 33-300 amu, 2.72 scans/sec

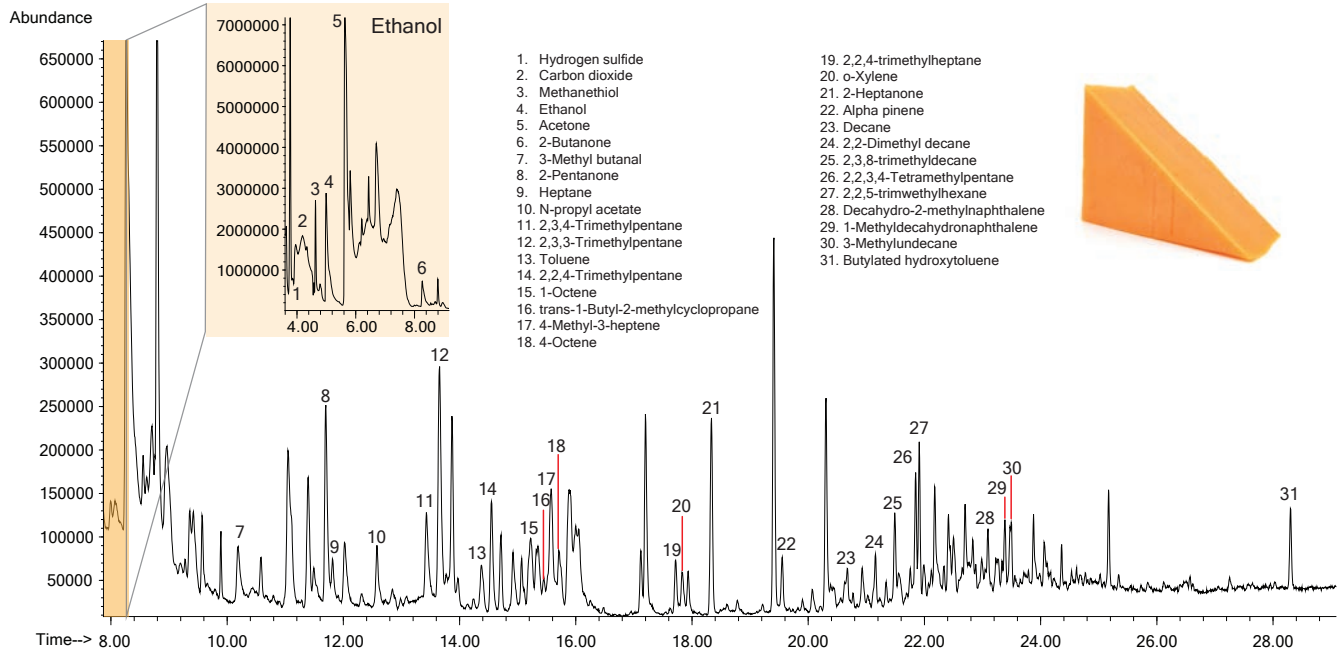
1. Hydrogen sulfide
2. Propene
3. Methanethiol
4. Acetaldehyde
5. 1-Propanol
6. Thiirane, methyl-
7. Allyl mercaptan
8. Sulfide, allyl methyl
9. Mercaptoacetone
10. Propanoic acid, ethyl ester
11. Disulfide, dimethyl
12. Diallyl sulfide
13. Thiophene, 2,4-dimethyl-
14. Disulfide, methyl 2-propenyl
15. Disulfide, methyl propyl
16. 1,3-Dithiane
17. Allyl thiopropionate
18. D-Limonene
19. Diallyl disulphide
20. 2-Ethyl[1,3]dithiane
21. Dodecane



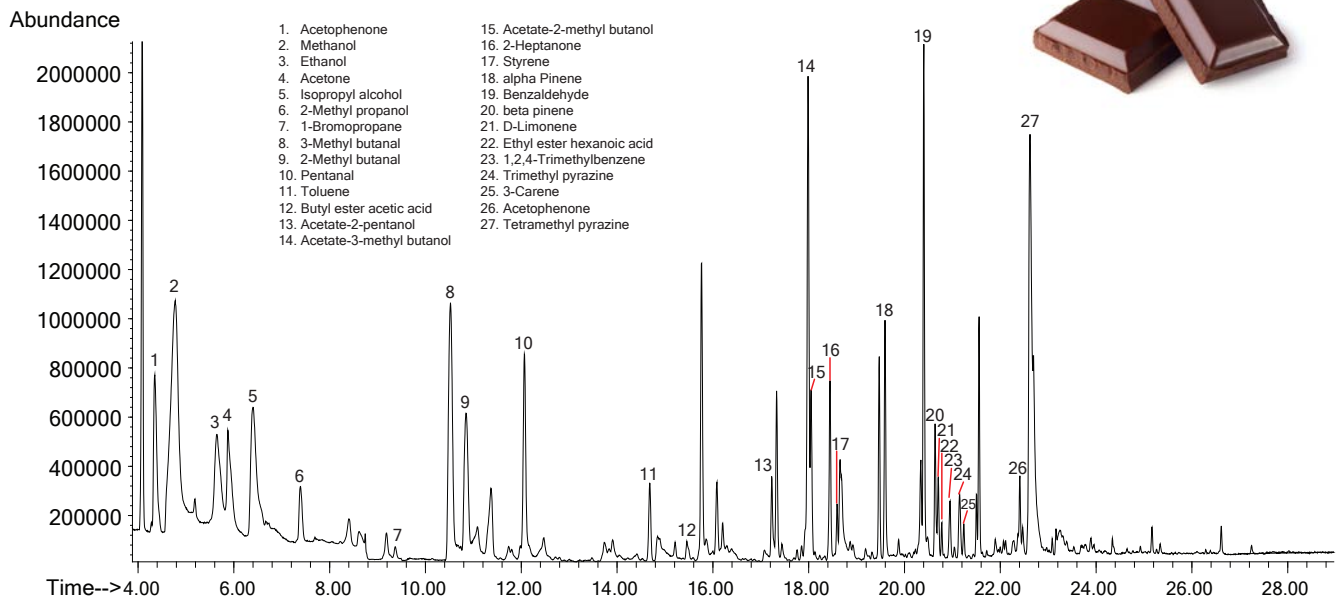
Abundance



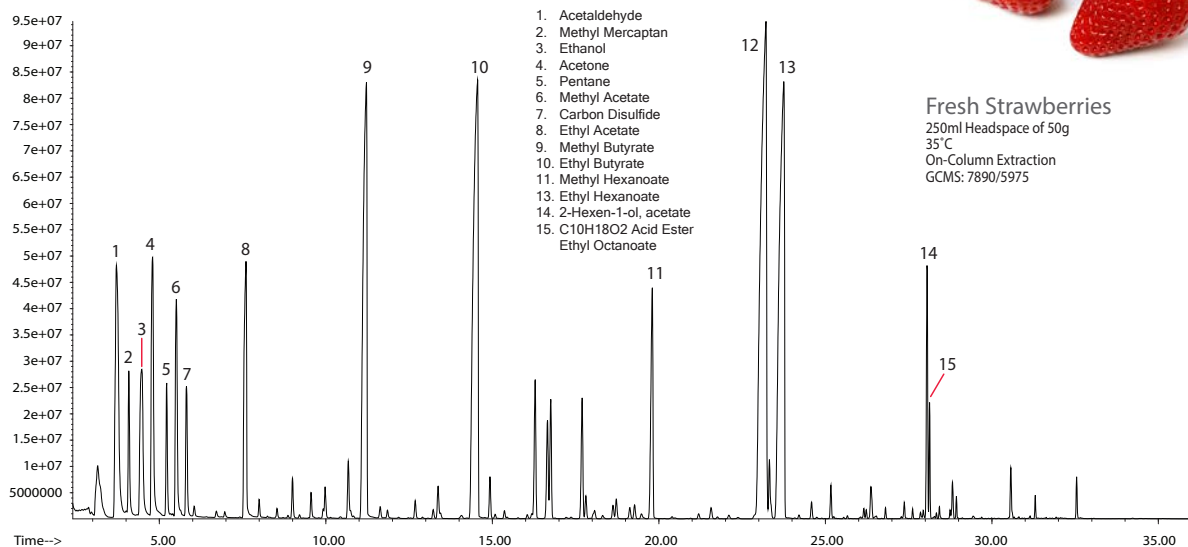
Cheddar Cheese Analysis



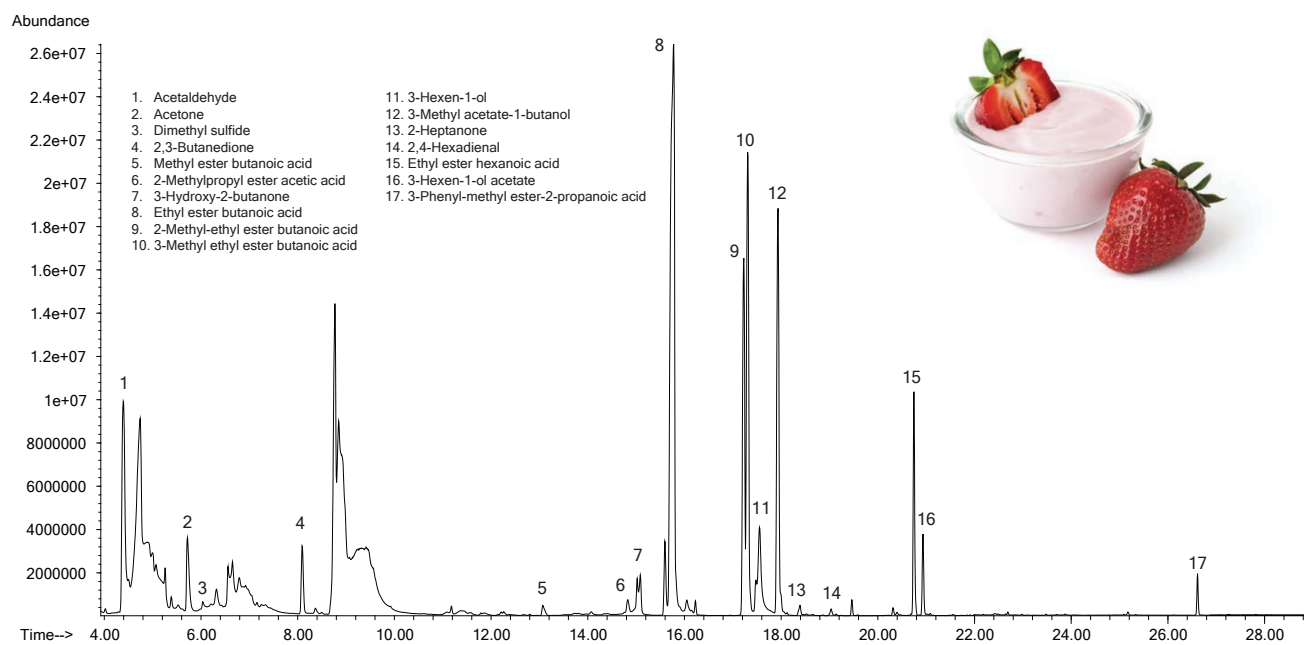
Dark Chocolate Analysis



Fresh Strawberry Analysis



Strawberry Yogurt Analysis





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7650HS-CTS Chromatography –180103 2.1