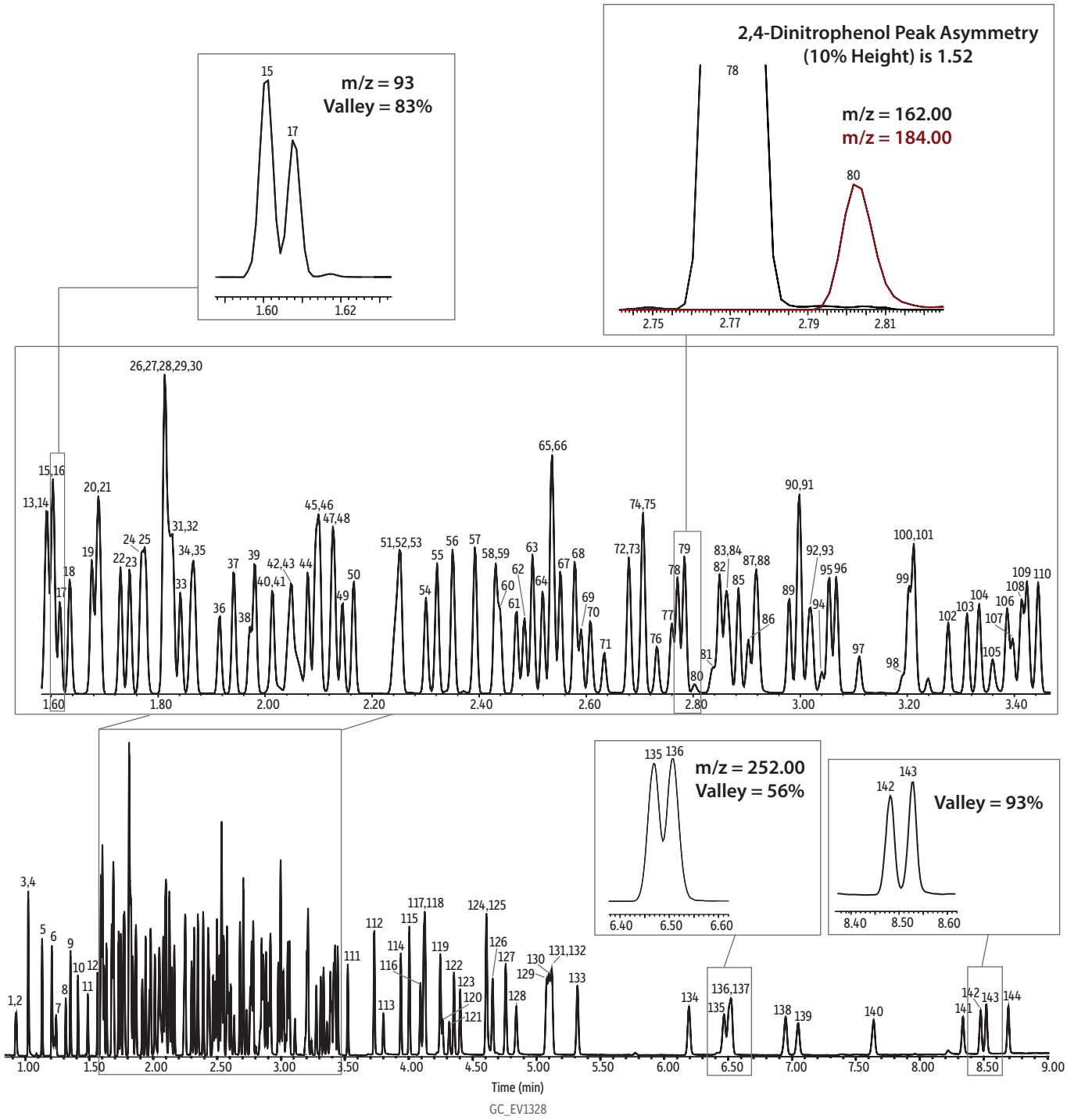
9-Minute Semivolatiles Analysis with Appendix IX on Rxi®-5ms by U.S. EPA Method 8270D



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Peaks

1. 1,4-Dioxane-d8 (IS)
2. 1,4-Dioxane
3. N-Nitrosodimethylamine
4. Pyridine
5. Ethyl methacrylate
6. 2-Picoline
7. N-Nitrosomethylethylamine
8. Methyl methanesulfonate
9. 2-Fluorophenol (SS)
10. N-Nitrosodiethylamine
11. Ethyl methanesulfonate
12. Benzaldehyde
13. Phenol-d6 (SS)
14. Phenol
15. Aniline
16. Pentachloroethane
17. Bis(2-chloroethyl) ether
18. 2-Chlorophenol
19. 1,3-Dichlorobenzene
20. 1,4-Dichlorobenzene-d4 (IS)
21. 1,4-Dichlorobenzene
22. Benzyl alcohol
23. 1,2-Dichlorobenzene
24. 2-Methylphenol
25. Bis(2-Chloroisopropyl)ether
26. *p*-Cresol (4-methylphenol)
27. *m*-Cresol (3-methylphenol)
28. Acetophenone
29. N-Nitrosopyrrolidine
30. N-Nitrosomorpholine
31. N-Nitrosodi-*n*-propylamine
32. *o*-Toluidine
33. Hexachloroethane
34. Nitrobenzene-d5 (SS)
35. Nitrobenzene
36. N-Nitrosopiperidine
37. Isophorone
38. 2-Nitrophenol
39. 2,4-Dimethylphenol
40. Bis(2-chloroethoxy)methane
41. Benzoic acid
42. 2,4-Dichlorophenol
43. α,α-Dimethylphenethylamine (Phentermine)
44. 1,2,4-Trichlorobenzene
45. Naphthalene-d8 (IS)
46. Naphthalene
47. 4-Chloroaniline
48. 2,6-Dichlorophenol
49. Hexachloropropene
50. Hexachlorobutadiene

Peaks

51. Caprolactam
52. N-Nitroso-*n*-butylamine
53. 1,4-Phenylenediamine
54. 4-Chloro-3-methylphenol
55. Isosafrole I (isomer)
56. 2-Methylnaphthalene
57. 1-Methylnaphthalene
58. Isosafrole II (isomer)
59. 1,2,4,5-Tetrachlorobenzene
60. Hexachlorocyclopentadiene
61. 2,4,6-Trichlorophenol
62. 2,4,5-Trichlorophenol
63. 2-Fluorobiphenyl (SS)
64. Safrole
65. Biphenyl
66. 2-Chloronaphthalene
67. 1-Chloronaphthalene
68. Diphenyl ether
69. 2-Nitroaniline
70. 1,4-Naphthoquinone
71. 1,4-Dinitrobenzene
72. Dimethyl phthalate
73. 1,3-Dinitrobenzene
74. 2,6-Dinitrotoluene
75. Acenaphthylene
76. 1,2-Dinitrobenzene
77. 3-Nitroaniline
78. Acenaphthene-d10 (IS)
79. Acenaphthene
80. 2,4-Dinitrophenol
81. 4-Nitrophenol
82. Dibenzofuran
83. Pentachlorobenzene
84. 2,4-Dinitrotoluene
85. 1-Naphthalamine
86. 2,3,5,6-Tetrachlorophenol
87. 2-Naphthalamine
88. 2,3,4,6-Tetrachlorophenol
89. Diethyl phthalate
90. 4-Chlorophenyl phenyl ether
91. Fluorene
92. 2-Methyl-5-nitroaniline
93. 4-Nitroaniline
94. 4,6-Dinitro-2-methylphenol
95. N-Nitrosodiphenylamine
96. 1,2-Diphenylhydrazine (as Azobenzene)
97. 2,4,6-Tribromophenol (SS)
98. 1,3,5-Trinitrobenzene
99. Diallate
100. Phenacetin

Peaks

101. 4-Bromophenyl phenyl ether
102. Hexachlorobenzene
103. Atrazine
104. 4-Aminobiphenyl
105. Pentachlorophenol
106. Propyzamide
107. Pentachloronitrobenzene
108. Phenanthrene-d10 (IS)
109. Phenanthrene
110. Anthracene
111. Carbazole
112. di-*n*-Butyl phthalate
113. 4-Nitroquinoline oxide
114. Isodrin
115. Fluoranthene
116. Benzidine
117. Pyrene-d10 (SS)
118. Pyrene
119. Aramite I (isomer)
120. *p*-Terphenyl-d14 (SS)
121. Aramite II (isomer)
122. Dimethylaminoazobenzene
123. Chlorobenzilate
124. 3,3'-Dimethylbenzidine
125. Kepone
126. *n*-Butyl benzyl phthalate
127. Bis(2-ethylhexyl) adipate
128. 2-Acetylaminofluorine
129. 3,3'-Dichlorobenzidine
130. Chrysene-d12 (IS)
131. Benz[a]anthracene
132. Chrysene
133. Bis(2-ethylhexyl) phthalate
134. Di-*n*-octyl phthalate
135. Benzo[b]fluoranthene
136. Benzo[k]fluoranthene
137. 7,12-Dimethylbenzo[a]anthracene
138. Benzo[a]pyrene
139. Perylene-d12 (IS)
140. 3-Methylcholanthrene
141. Dibenz[a,j]acridine
142. Indeno[1,2,3-cd]pyrene
143. Dibenz[a,h]anthracene
144. Benzo[ghi]perylene

Column	Rxi®-5ms, 10 m, 0.18 mm ID, 0.18 µm using Rxi®-5ms 2 m, 0.18 mm ID with 0.4 mm OD matched press-fit, BGB (cat.# 2525LD)
Sample	Revised SV internal standard mix (cat.# 31886) Revised B/N surrogate mix (cat.# 31888) Acid surrogate mix (4/89 SOW) (cat.# 31063) 8270 MegaMix® (cat.# 31850) 8270 Benzidines mix (cat.# 31852) Benzoic acid (cat.# 31879) Appendix IX mix #1, revised (cat.# 32459) Appendix IX mix #2 (cat.# 31806)
Diluent:	Dichloromethane
Conc.:	20 µg/mL (1.0 ng on column)
Injection	
Inj. Vol.:	0.5 µL split (split ratio 10:1)
Liner:	2 mm Split Precision® liner w/deact. wool (cat.# 20824)
Inj. Temp.:	275 °C
Split Vent Flow Rate:	9 mL/min
Oven	
Oven Temp.:	35 °C (hold 0.5 min) to 115 °C at 95 °C/min to 240 °C at 65 °C/min to 265 °C at 6 °C/min to 330 °C at 35 °C/min (hold 1 min)
Carrier Gas	He, constant flow
Flow Rate:	0.9 mL/min
Detector	MS
Mode:	Scan

Scan Program:

Group	Start Time (min)	Scan Range (amu)	Scan Rate (scans/sec)
1	0.75	35-450	11.47
2	3.67	35-450	6.48

Transfer Line Temp.:	320 °C
Analyzer Type:	Quadrupole
Source Type:	Inert
Drawout Plate:	3 mm ID
Source Temp.:	330 °C
Quad Temp.:	180 °C
Electron Energy:	70 eV
Solvent Delay Time:	0.75 min
Tune Type:	BFB
Ionization Mode:	EI
Instrument	Agilent 7890A GC & 5975C MSD
Notes	The 10 m analytical and 2 m guard columns used in this application are segments of a 20 m x 0.18 mm ID x 0.18 µm df Rxi®-5ms column (cat.# 13402). The 20 m column was cut to yield one 10 m analytical column and five 2 m guard columns.

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