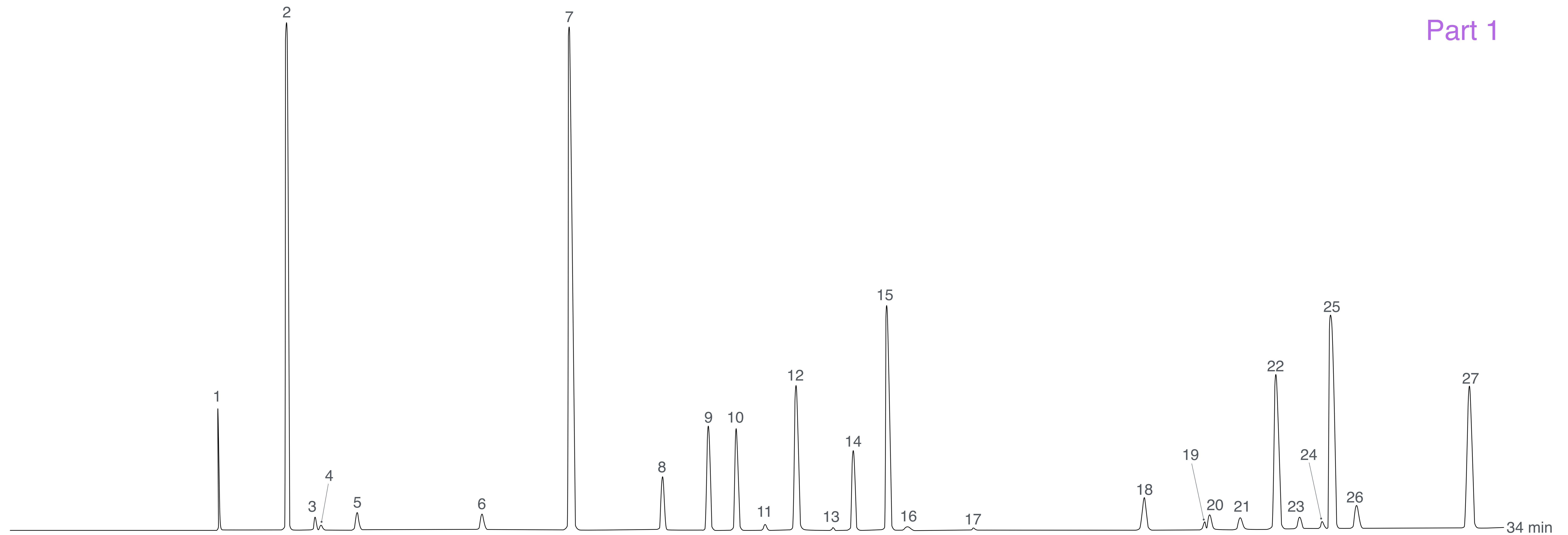


## Hydrocarbons, C<sub>4</sub> - C<sub>12</sub>

Part 1



### Column:

MEGA-1 PONA - 0.25mm x 0.50micron x 100m  
(Catalog Code: C-PONA-025-050-100)

### Conditions:

Oven: 30°C (15min), 1°C/min, 50°C, 2°C/min, 130°C, 4°C/min, 180°C (20min).  
Carrier: 260kPa Helium constant pressure.  
Injector: Split, 220°C.  
Detector: FID, 250°C.

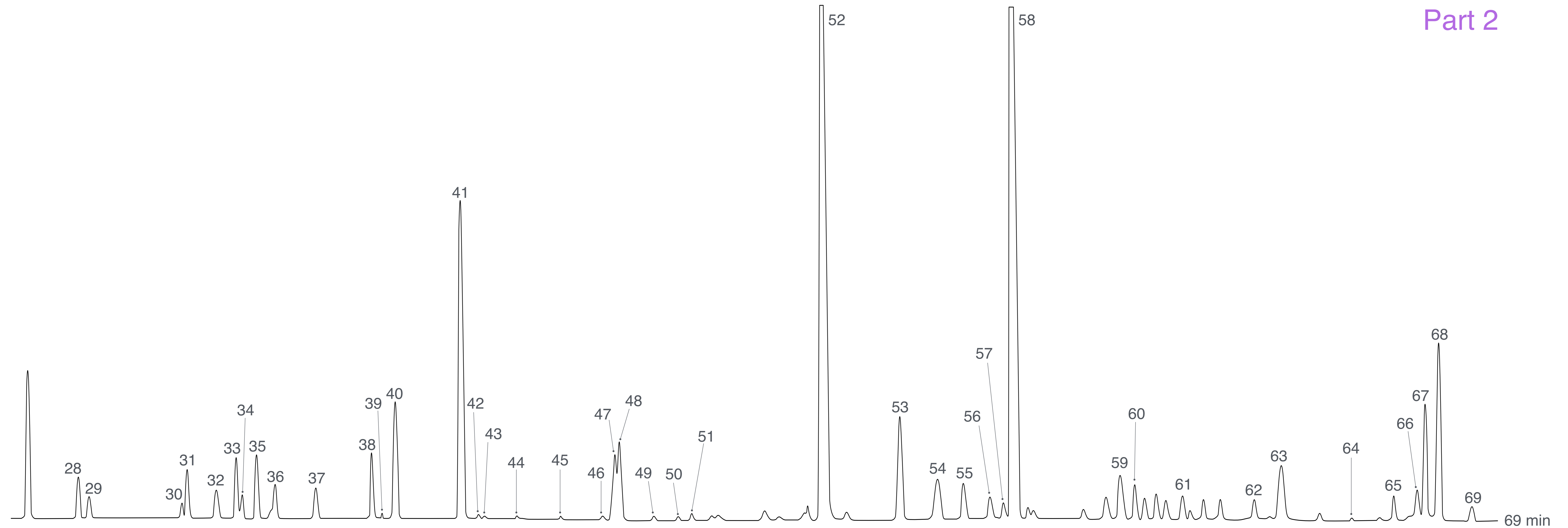
### Peak Identification

- |                        |                           |
|------------------------|---------------------------|
| 1. isobutane           | 15. 2-methyl-2-butene     |
| 2. n-butane            | 16. trans-1,3-pentadiene  |
| 3. trans-2-butene      | 17. cis-1,3-pentadiene    |
| 4. 2,2-dimethylpropane | 18. cyclopentene          |
| 5. cis-2-butene        | 19. 4-methyl-1-pentene    |
| 6. 3-methyl-1-butene   | 20. cis-2,3-pentadiene    |
| 7. isopentane          | 21. cyclopentane          |
| 8. 1-pentene           | 22. 2,3-dimethylbutane    |
| 9. 2-methyl-1-butene   | 23. C <sub>6</sub> olefin |
| 10. n-pentane          | 24. C <sub>6</sub> olefin |
| 11. isoprene           | 25. 2-methylpentane       |
| 12. trans-2-pentene    | 26. C <sub>6</sub> olefin |
| 13. 1-pentyne          | 27. 3-methylpentane       |
| 14. cis-2-pentene      |                           |



## Hydrocarbons, C<sub>4</sub> - C<sub>12</sub>

Part 2



### Column:

MEGA-1 PONA - 0.25mm x 0.50micron x 100m  
(Catalog Code: C-PONA-025-050-100)

### Conditions:

Oven: 30°C (15min), 1°C/min, 50°C, 2°C/min, 130°C, 4°C/min, 180°C (20min).  
Carrier: 260kPa Helium constant pressure.  
Injector: Split, 220°C.  
Detector: FID, 250°C.

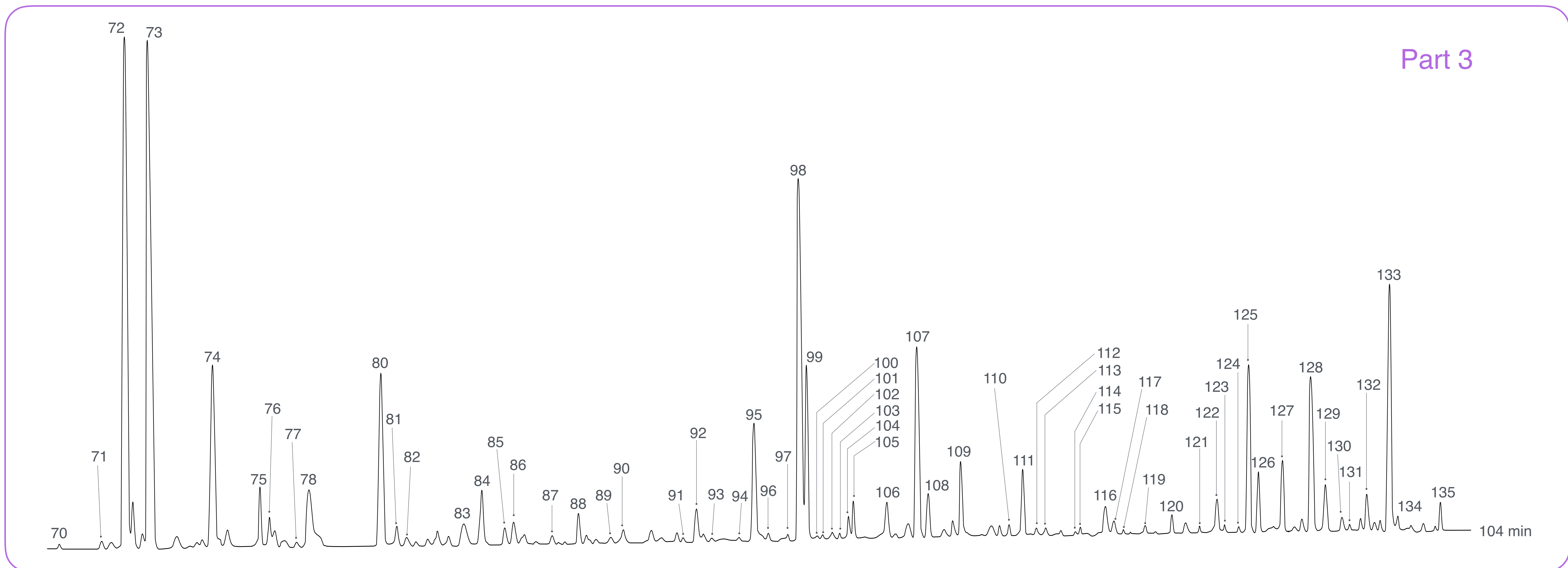
### Peak Identification

28. C <sub>6</sub> olefin	43. 2,2,3-trimethylbutane	58. 2,2,4-trimethylpentane
29. 1-hexane	44. C <sub>7</sub> olefin	59. 1-heptane
30. C <sub>6</sub> olefin	45. C <sub>7</sub> olefin	60. n-heptane
31. n-hexane	46. C <sub>7</sub> olefin	61. cis-3-heptane
32. C <sub>6</sub> olefin	47. benzene	62. trans-2-heptene
33. trans-2-hexane	48. 1-methyl-1-cyclopentane	63. cis-2-heptene
34. C <sub>6</sub> olefin	49. C <sub>7</sub> olefin	64. methylcyclohexane
35. 2-methylpentadiene	50. 3,3-dimethylpentane	65. 2,2-dimethylhexane
36. C <sub>6</sub> olefin	51. cyclohexane	66. ethylcyclopentane
37. cis-2-hexene	52. 2-methylhexane	67. 2,5-dimethylhexane
38. C <sub>6</sub> olefin	53. 3-methylhexane	68. 2,2,3-trimethylpentane
39. C <sub>6</sub> olefin	54. cis1,3-dimethylcyclopentane	69. 2,4-dimethylhexane
40. methylcyclopentane	55. trans1,3-dimethylcyclopentane	
41. 2,4-dimethylpentane	56. 3-ethylpentane	
42. C <sub>7</sub> olefin	57. trans-1,2-dimethylpentane	



# Hydrocarbons, C<sub>4</sub> - C<sub>12</sub>

Part 3



### Column:

MEGA-1 PONA - 0.25mm x 0.50micron x 100m  
(Catalog Code: C-PONA-025-050-100)

### Conditions:

Oven: 30°C (15min), 1°C/min, 50°C, 2°C/min, 130°C, 4°C/min, 180°C (20min).  
Carrier: 260kPa Helium constant pressure.  
Injector: Split, 220°C.  
Detector: FID, 250°C.

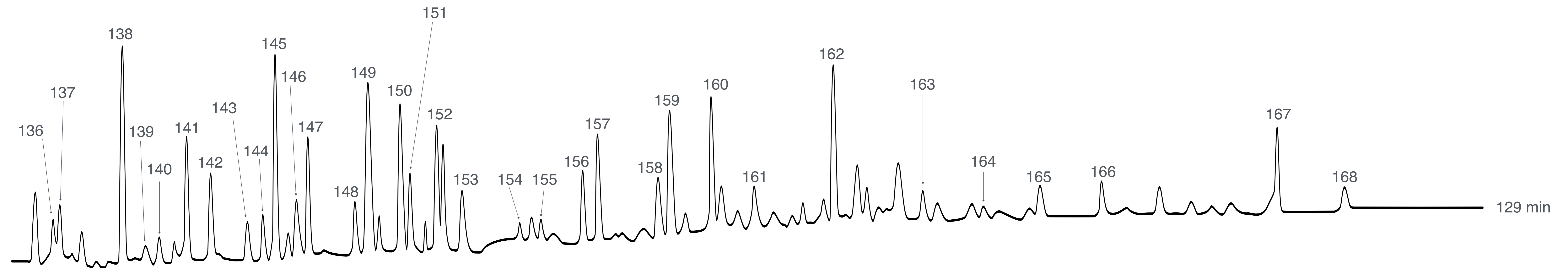
### Peak Identification

70. trans-cis-1,2,3-trimethylcyclopentane	90. ethylcyclohexane	107. o-xylene	124. 3-methyl-5-ethylheptane
71. trans-cis-1,2,3-trimethylcyclopentane	91. 1,1,4-trimethylcyclohexane	108. C <sub>9</sub> paraffin	125. 1-ethyl-3-methylbenzene
72. 2,3,4-trimethylpentane	92. 3,3-dimethylheptane	109. 1-nonene	126. 1-ethyl-4-methylbenzene
73. toluene + 2,3,3-trimethylpentane	93. 2,5-dimethylheptane	110. cis-3-nonene	127. 1,3,5-trimethylbenzene
74. 2,3,4-dimethylhexane	94. 2,3,3-trimethylhexane	111. C <sub>9</sub> paraffin	128. 3,3,4-trimethylheptane
75. 2-methylheptane	95. ethylbenzene	112. 1-methyl-1-ethylcyclohexane	129. 1-ethyl-2-methylbenzene
76. 4-methylheptane	96. trans-1,2,4-trimethylcyclohexane	113. C <sub>10</sub> paraffin	130. 3-ethyloctane
77. cis-trans-1,2,4-trimethylpentane	97. 3,3,4-trimethylhexane	114. isopropylbenzene	131. 3-methylnonane
78. 3,4-dimethylhexane	98. m-xylene	115. trans-butylcyclopentene	132. C <sub>10</sub> paraffin
79. 3-methylheptane	99. p-xylene	116. 2,2-dimethyloctane	133. 1,2,4-trimethylbenzene
80. 2,2,5-trimethylhexane	100. 3,5-dimethylheptane	117. 1-methyl-4-isopropylhexane	134. C <sub>10</sub> paraffin
81. cis-1-ethyl-2-methylcyclohexane (?)	101. 2,3-dimethylheptane	118. 2,4-dimethyloctane	135. 1-decane
82. cis-1-ethyl-3-methylcyclohexane (?)	102. 3,4-dimethylheptane	119. 2,6-dimethyloctane	
83. cis,cis-1,2,3-trimethylpentane	103. 4-ethylheptane	120. butylcyclopentane	
84. n-octane	104. 4-methyloctane	121. 3,3-dimethyloctane	
85. trans-2-octene	105. 2-methyloctane	122. propylbenzene	
86. isopropylcyclopentane	106. 3-methyloctane	123. 3,6-dimethyloctane	
87. 2,3,5-trimethylhexane			
88. 2,2-dimethylheptane			
89. cis-1,2-dimethylcyclohexane			



## Hydrocarbons, C<sub>4</sub> - C<sub>12</sub>

Part 4



### Column:

MEGA-1 PONA - 0.25mm x 0.50micron x 100m  
(Catalog Code: C-PONA-025-050-100)

### Conditions:

Oven: 30°C (15min), 1°C/min, 50°C, 2°C/min, 130°C,  
4°C/min, 180°C (20min).

Carrier: 260kPa Helium constant pressure.

Injector: Split, 220°C.

Detector: FID, 250°C.

### Peak Identification

136. C <sub>10</sub> paraffin	151. 1,3-dimethyl-4-ethylbenzene	164. 1,3,5-triethylbenzene
137. n-decane	152. 1,2-dimethyl-4-ethylbenzene	165. 1,2,4-triethylbenzene
138. 1,2,3-trimethylbenzene	153. 1,3-dimethyl-2-ethylbenzene	166. 1-methyl-4-pentylbenzene
139. 1-methyl-4-isopropylbenzene	154. 1,2-dimethyl-3-ethylbenzene	167. 2-methylnaphthalene
140. C <sub>11</sub> paraffin	155. n-undecane	168. 1-methylnaphthalene
141. indane	156. 1,2,4,5-tetramethylbenzene	
142. naphthene + 3-ethylnonane	157. 1,2,3,5-tetramethylbenzene	
143. 1,3-diethylbenzene	158. trans-1-butyl-2-methylbenzene	
144. 1-methyl-3-propylbenzene	159. 1-ethyl-2-propylbenzene	
145. 1-methyl-4-propylbenzene	160. 1-methyl-3-butylbenzene	
146. 1,4-diethylbenzene	161. pentylbenzene	
147. 1,3-dimethyl-5-ethylbenzene	162. naphthalene	
148. 1-methyl-2-propylbenzene	163. n-dodecane	
149. C <sub>11</sub> paraffin		
150. 1,4-dimethyl-2-ethylbenzene		

