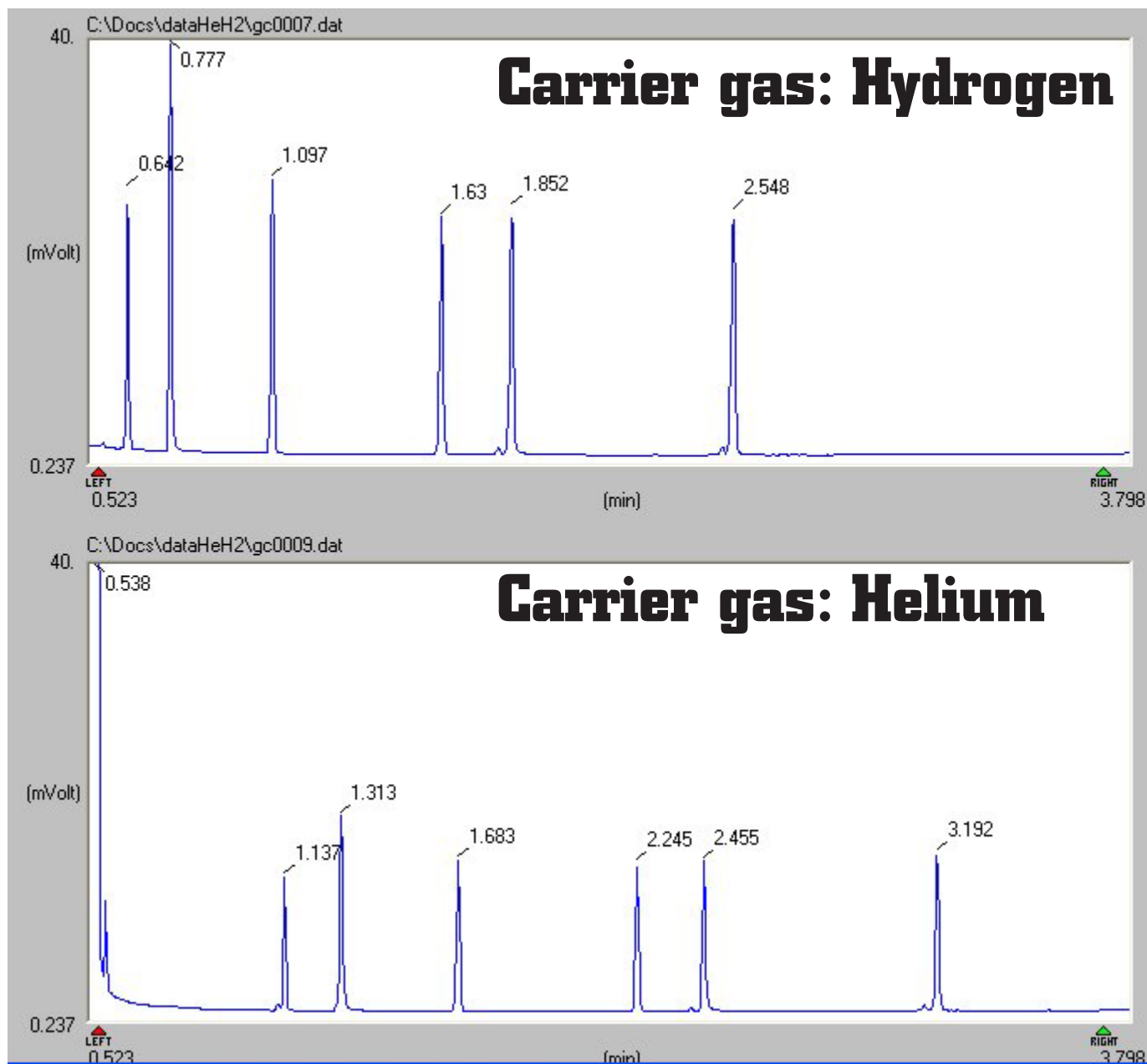


H₂ Sensor: Hydrogen or Helium?



- Innovative Solutions
- Quality products
- Comprehensive customer support

Hydrogen: Increased throughput



Identical GC conditions:

Column ZB1 15m - 0.32mm i.d. - 0.25 μ m FT

Oven program 60 $^{\circ}$ C-0.50min-30 $^{\circ}$ C/min-180 $^{\circ}$ C-1min.

Injector temp: 250 $^{\circ}$ C - Split injection 20:1- constant flow: 3ml/min

Detector temp (FID): 250 $^{\circ}$ C - H₂ flow 35ml/min - Air flow: 350ml/min

1 μ l hot needle Injection.

Hydrogen: Increased sensitivity

Carrier gas: Helium

<u>Compound name</u>	<u>Area%</u>	<u>RT</u>	<u>Area</u>
Ethyl n-valerate	11.94%	1.14	67660
benzaldehyde	20.10%	1.31	113866
Eucalyptus	16.47%	1.68	93292
DL Menthol	15.85%	2.25	89773
Beta-Citronellol	17.25%	2.46	97709
Alpha ionone	18.39%	3.19	104197
Totals	100		566497

Carrier gas: Hydrogen

<u>Compound name</u>	<u>Area%</u>	<u>RT</u>	<u>Area</u>
Ethyl n-valerate	12.16%	0.64	131624
benzaldehyde	20.86%	0.78	225720
Eucalyptus	16.06%	1.1	173747
DL Menthol	15.64%	1.63	169258
Beta-Citronellol	17.48%	1.85	189172
Alpha ionone	17.80%	2.55	192593
Totals	100		1082114

Improvement Hydrogen versus Helium

<u>Compound name</u>	<u>Area H2/He</u>	<u>RT H2/He</u>
Ethyl n-valerate	1.945	0.5614
benzaldehyde	1.982	0.59542
Eucalyptus	1.862	0.65476
DL Menthol	1.885	0.72444
Beta-Citronellol	1.936	0.75203
Alpha ionone	1.848	0.79937

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