

Application Datasheet

Micro GC Fusion® Hydrogen Sulfide Applications Datasheet

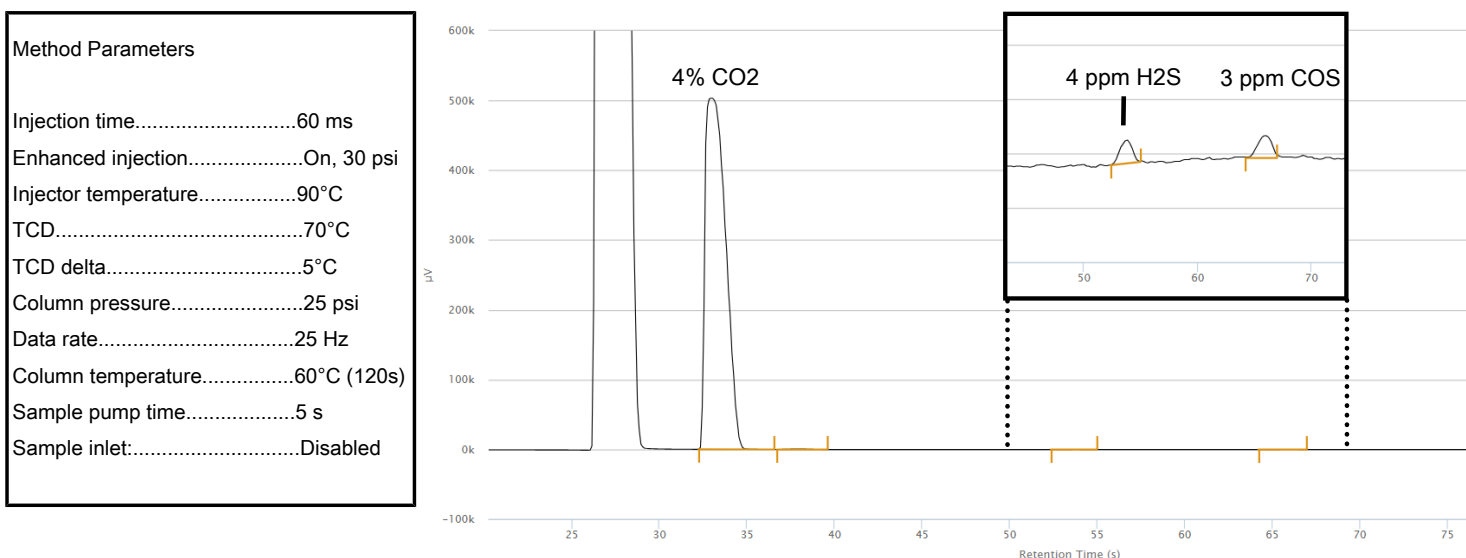
Introduction

This datasheet highlights the three modules used for a variety of hydrogen sulfide (H₂S) applications, the 12 m RT-U-Bond, the 20 m Rxi-1ms, and the 12 m RT-Q-Bond.

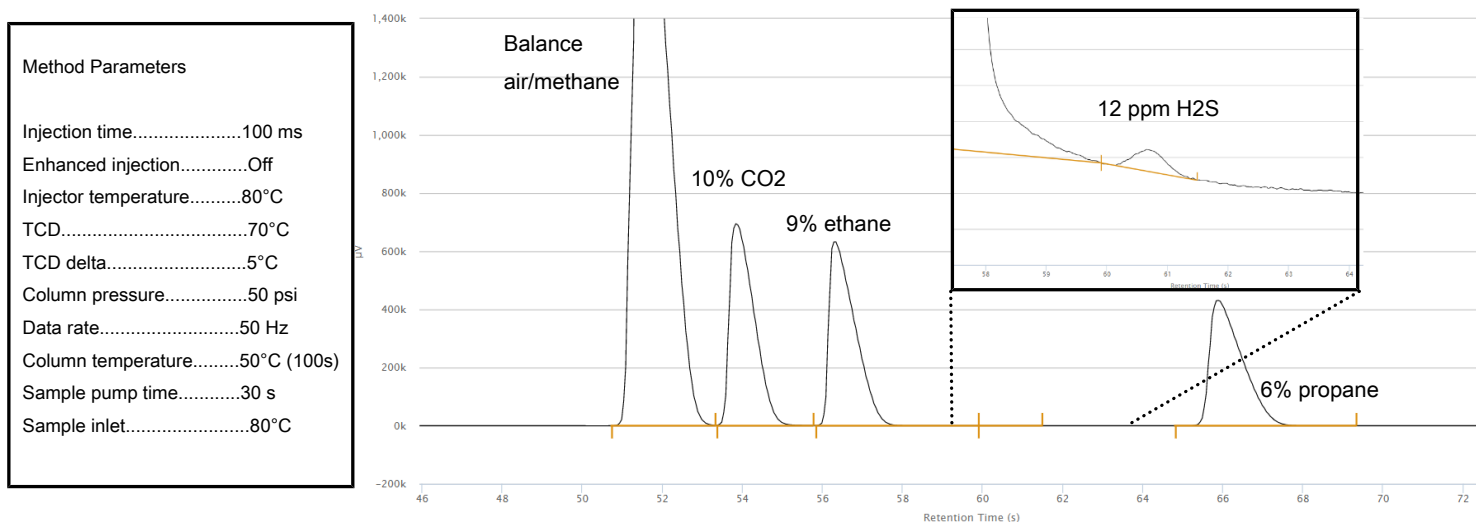
The method parameters listed on the chromatograms can be used as a starting point for creating a method and can be adjusted to ensure that all compounds are fully separated. The exact retention times vary from GC to GC, but the compound order remains the same.

Chromatograms

12 m RT-U-Bond large volume injector for H₂S in biomethane

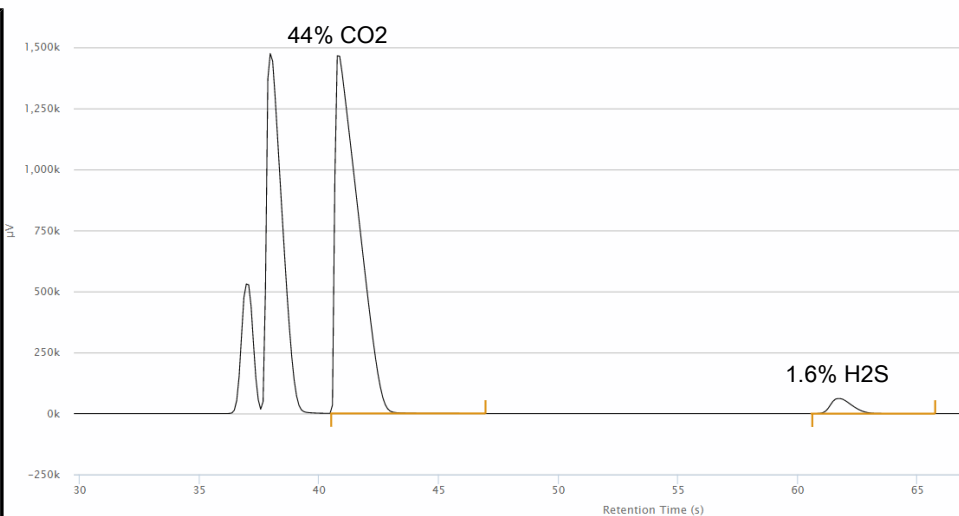


20 m Rxi-1ms large volume injector for H₂S in biomethane



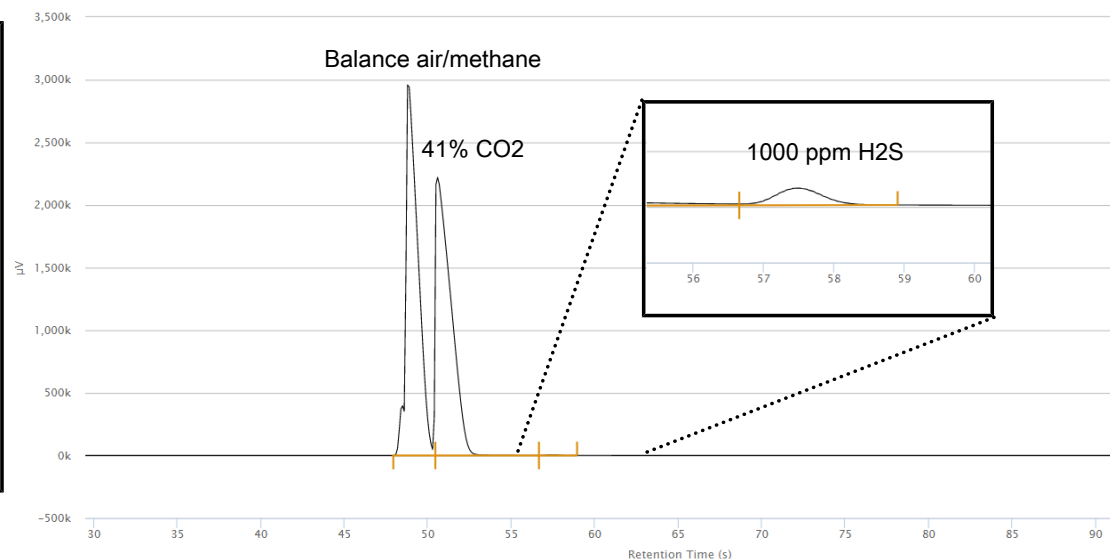
12 m RT-Q-Bond variable volume injector for H₂S in landfill gas

Method Parameters	
Injection time.....	20 ms
Enhanced injection.....	Off
Injector temperature.....	90°C
TCD.....	70°C
TCD delta.....	5°C
Column pressure.....	18 psi
Data rate.....	100 Hz
Column temperature.....	70°C (75s)->175°C (50s)
Ramp rate.....	2°C/s
Sample pump time.....	20 s
Sample inlet:.....	90°C



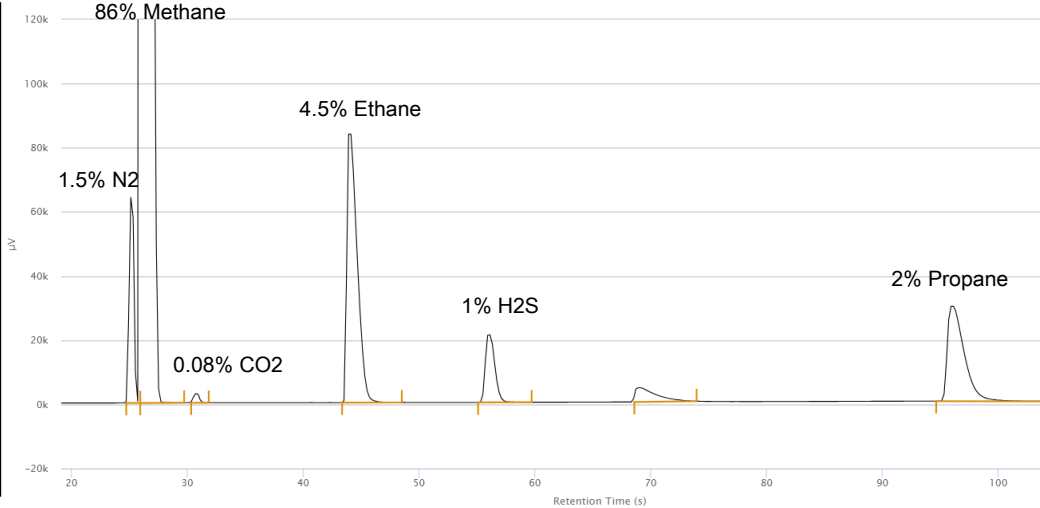
20 m Rxi-1ms large volume injector for H₂S in landfill gas

Method Parameters	
Injection time.....	100 ms
Enhanced injection.....	Off
Injector temperature.....	90°C
TCD.....	70°C
TCD delta.....	5°C
Column pressure.....	45 psi
Data rate.....	50 Hz
Column temperature.....	50°C (100s)
Sample pump time.....	15 s
Sample inlet:.....	90°C



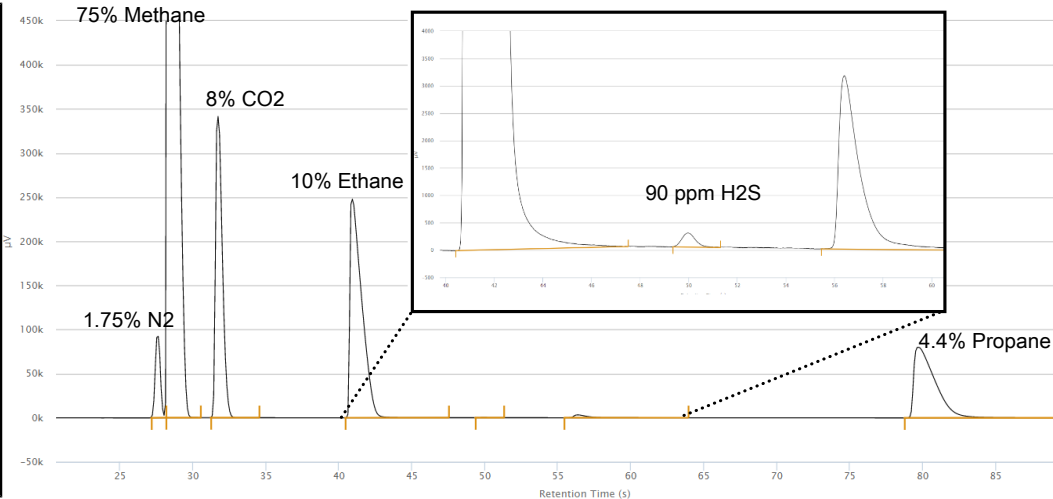
12 m RT-Q-Bond fixed volume injector for percent H₂S in natural gas

Method Parameters	
Injection time.....	35 ms
Enhanced injection.....	Off
Injector temperature.....	90°C
TCD.....	70°C
TCD delta.....	5°C
Column pressure.....	25 psi
Data rate.....	25 Hz
Column temperature.....	60°C (50s)->100°C (15s)100°C -->210°C (35s)
Ramp rate.....	1°C/s, 1.5°C/s
Sample pump time.....	45 s
Sample inlet:.....	90°C



12 m RT-Q-Bond fixed volume injector for ppm H₂S in natural gas

Method Parameters	
Injection time.....	35 ms
Enhanced injection.....	Off
Injector temperature.....	90°C
TCD.....	70°C
TCD delta.....	5°C
Column pressure.....	23 psi
Data rate.....	100 Hz
Column temperature.....	60°C (40s) ->120°C (0s)
.....	120°C ->210°C (50s)
Ramp rate.....	1°C/s, 1.5°C/s
Sample pump time.....	10 s
Sample inlet.....	100°C
ISC purge time.....	7s
ISC flow rate.....	High



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