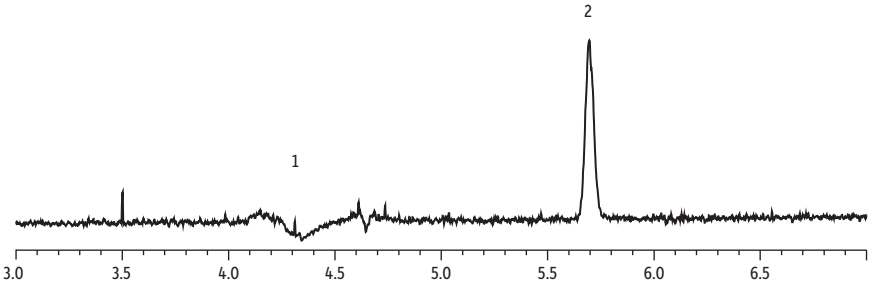
Thiophene in Benzene on Rtx-Wax



GC_PC1357

Peaks

1. Elution of benzene
2. Thiophene

Column	Rtx-Wax, 30 m, 0.32 mm ID, 1.00 µm (cat.# 12454)
Sample	
Diluent:	Benzene
Conc.:	0.5 mg/kg
Injection	
Inj. Vol.:	1 µL split (split ratio 10:1)
Liner:	Topaz 4.0 mm ID Precision inlet liner w/wool (cat.# 23305)
Inj. Temp.:	200 °C
Oven	
Oven Temp.:	40 °C (hold 2 min) to 100 °C at 10 °C/min
Carrier Gas	He, constant flow
Flow Rate:	2 mL/min
Detector	SCD
Instrument	Agilent 7890B GC
Notes	Benzene is a popular industrial solvent and a precursor to many other aromatic chemicals. Determination of thiophene in benzene by ASTM D7011 is achieved using a sulfur selective detector. Most sulfur selective detectors will show signs of quenching at the point when the hydrocarbon solvent elutes. Therefore, for successful analysis, it is vital to separate thiophene from benzene. Rtx-Wax columns provide the required inertness and proper selectivity needed to separate those two compounds.