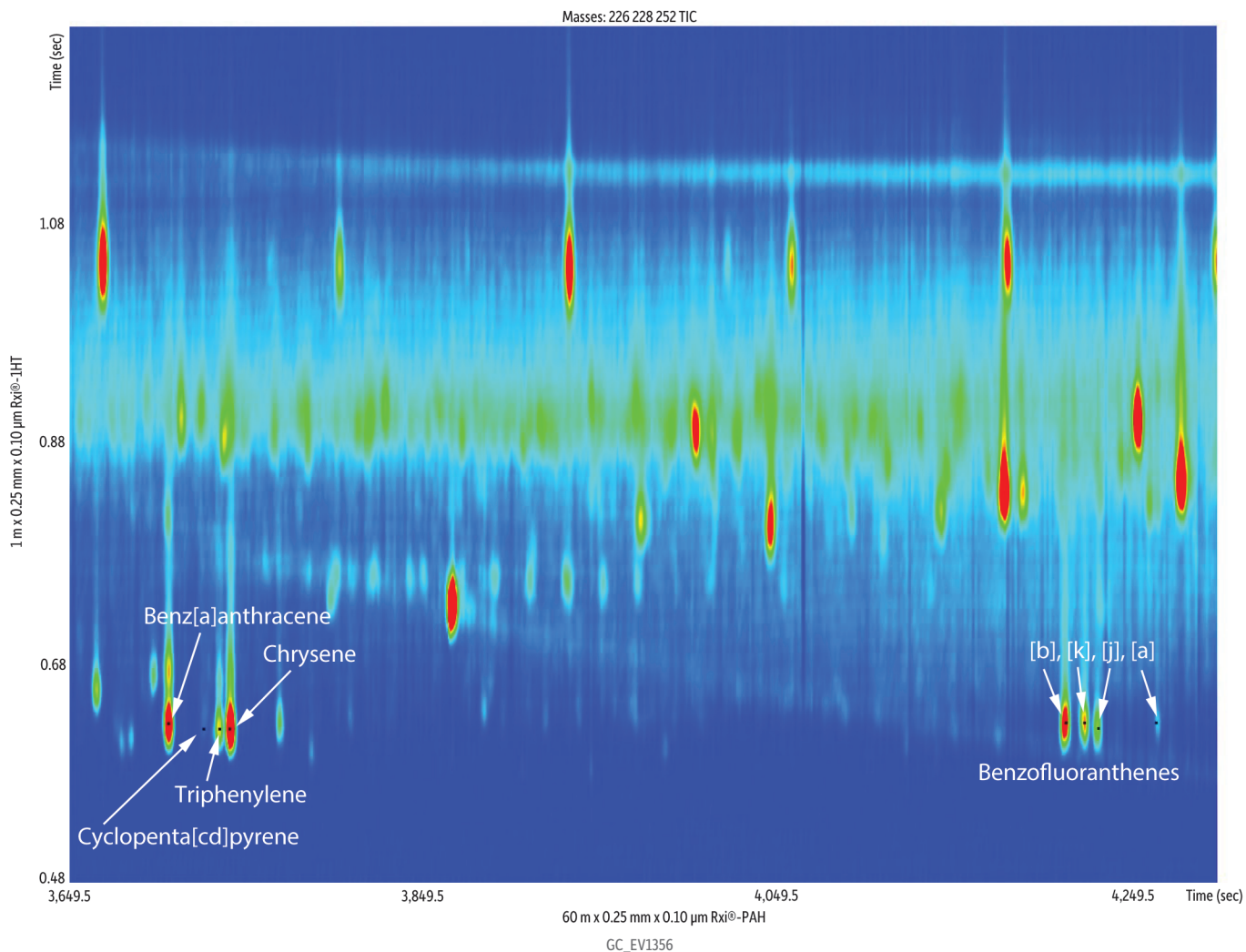


Polycyclic Aromatic Hydrocarbons (PAHs) in a Spring Creek Sediment Sample by GCxGC-TOFMS

Peaks	tr 1 (sec)	tr 2 (sec)
1. Benz[a]anthracene	3,706.5	0.625
2. Cyclopenta[cd]pyrene	3,726.0	0.620
3. Triphenylene	3,735.0	0.620
4. Chrysene	3,741.0	0.620
5. Benzo[b]fluoranthene	4,213.5	0.625
6. Benzo[k]fluoranthene	4,224.0	0.625
7. Benzo[j]fluoranthene	4,231.5	0.620
8. Benzo[a]fluoranthene	4,264.5	0.625



Column
Rxi-PAH 60 m, 0.25 mm ID, 0.10 µm (cat.# 49317)
Rxi-1HT 1 m, 0.25 mm ID, 0.10 µm (cat.# 13950)

Injection
Inj. Vol.: 1 µL splitless (hold 1.5 min)
Liner: Premium 4 mm single taper w/wool (cat.# 23303)
Inj. Temp.: 275 °C
Purge Flow: 40 mL/min

Oven
Oven Temp.: Rxi-PAH: 80 °C (hold 1.5 min) to 320 °C at 3 °C/min (hold 18.5 min)
Rxi-1HT: 85 °C (hold 3.17 min) to 320 °C at 3 °C/min (hold 18.5 min)
He, corrected constant flow (1.4 mL/min)

Carrier Gas
Modulation
Modulator Temp. Offset: 20 °C
Second Dimension
Separation Time: 1.5 sec
Hot Pulse Time: 0.45 sec
Cool Time between Stages: 0.35 sec

Detector
Transfer Line Temp.: 320 °C
Analyzer Type: TOF
Source Temp.: 300 °C
Electron Energy: 70 eV
Mass Defect: ~20 mu/100 u
Solvent Delay Time: 7 min
Tune Type: PFTBA
Ionization Mode: EI
Acquisition Range: 45-550 amu
Spectral Acquisition Rate: 200 spectra/sec
Instrument
LECO Pegasus 4D GCxGC-TOFMS
Notes
The Rxi-1HT column (cat.# 13950) is a 15 m column. A 1 m segment was cut off and used here as the second dimension column.
Sample extract provided by Frank Dorman, Melinda Pham; The Pennsylvania State University

Acknowledgement