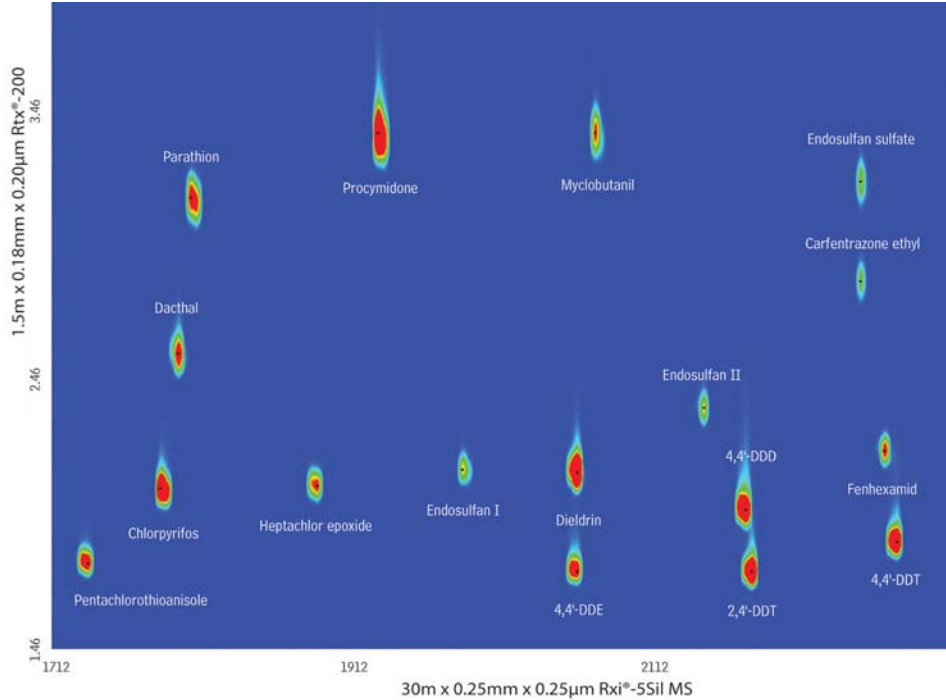


Pesticides in Dietary Supplements (GCxGC-TOFMS Contour Plot)

Excellent two-dimensional separation of pesticides using orthogonal column set of Rxi®-5Sil MS and Rtx®-200. Note 2D separation of compounds that have isobaric interferences when coeluting on Rxi®-5Sil MS, 2,4'-DDT and 4,4'-DDD.



GC_FF1188

Column Rxi®-5Sil MS 30 m, 0.25 mm ID, 0.25 µm (cat.# 13623)
Rtx®-200 1.5 m, 0.18 mm ID, 0.20 µm (cat.# 45001)

Sample Mixed pesticide standard

Diluent: Toluene

Conc.: 2 ng/µL

Injection

Inj. Vol.: 1 µL splitless (hold 1 min.)

Liner: Gooseneck Splitless (4mm) w/Wool (cat.# 22405)

Inj. Temp.: 250 °C

Purge Flow: 40 mL/min.

Oven

Oven Temp: Rxi®-5Sil MS: 80 °C (hold 1 min.) to 310 °C at 4 °C/min. (hold 1.5 min.)
Rtx®-200: 90 °C (hold 1 min.) to 320 °C at 4 °C/min. (hold 1.5 min.)

Carrier Gas

Flow Rate: He, constant flow
1.8 mL/min.

Modulation

Modulator

Temp. Offset: 25 °C

Second Dimension

Separation Time: 4 sec.

Hot Pulse Time: 1.2 sec.

Cool Time

between Stages: 0.8 sec.

Detector

Transfer

Line Temp.: 290 °C

Analyzer Type: TOF

Source Temp.: 225 °C

Electron Energy: 70 eV

Mass Defect: -20 mu/100 u

Solvent Delay Time: 4 min.

Ionization Mode: EI

Acquisition Range: 45 to 550 amu

Spectral

Acquisition Rate: 100 spectra/sec

Instrument LECO Pegasus 4D GCxGC-TOFMS

Notes See application note PHAN1251 for extraction and cleanup details. A 1.5 m length of the Rtx®-200 column was trimmed from a 10 m column. Columns were connected with a Universal Press-Tight® Connector (cat.# 20429). See chromatogram GC_FF1187 for full scale view.