

BPX90 – A Highly Polar Phase for FAME Analysis

A gas chromatography phase that has a dominant polar (π - π) chemistry and a negligible non-polar chemistry is desirable for the resolution of complex polyunsaturated FAME mixtures.

FAME Separation Test

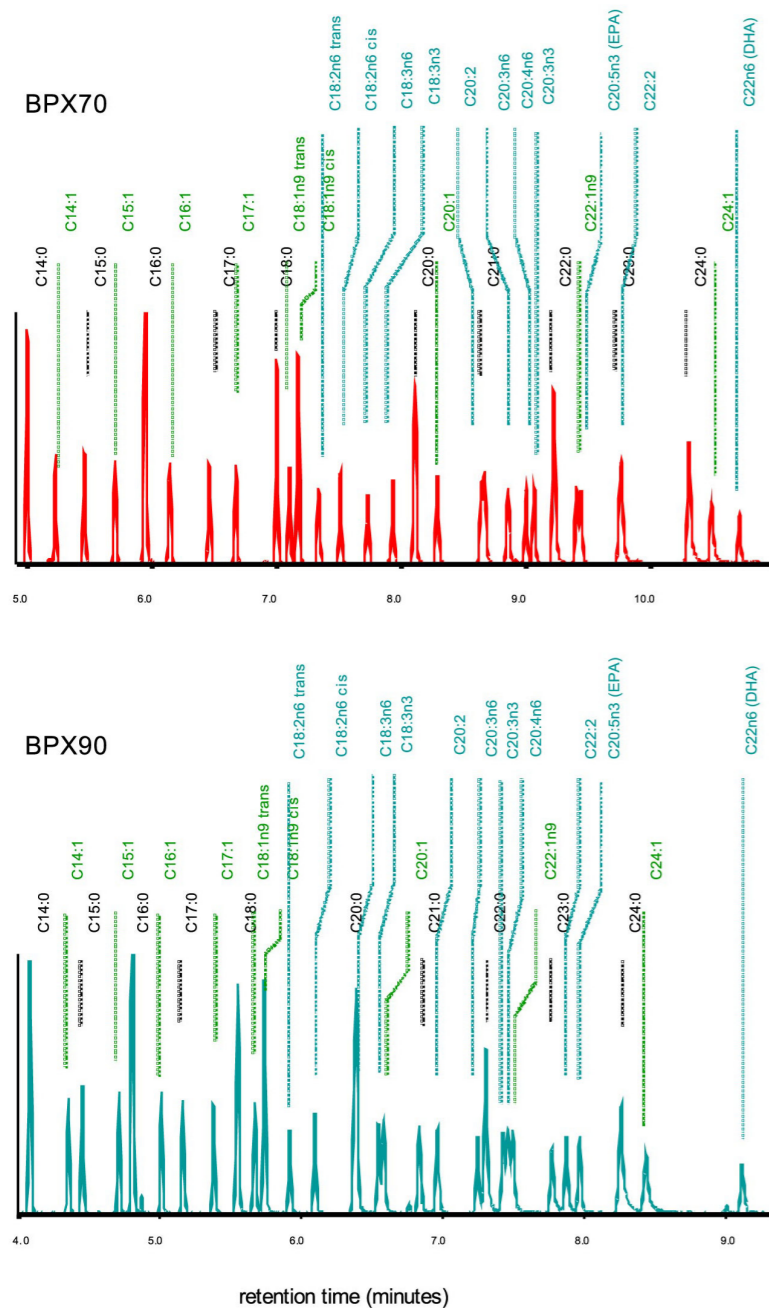


Figure 1. Supelco 37 FAME test mixture. Columns 15 m x 0.25 mm ID x 0.25 μ m. Temperature programmed 70 °C (hold 1 min) to 150 °C (20 °C/min) to 250 °C (10 °C/min) then hold at 250 °C (5 min). Injector: 240 °C. Detection MS.

What is Different about BPX90?

- BPX90 is a unique highly polar poly (biscyanopropylsiloxane) phase.
- The phase has excellent thermal stability and a wide operating range (80 - 280 °C).
- The separation mechanisms give short elution times relative to other polar phases. BPX90 shows low selectivity for non-polar analytes and saturated FAME.
- BPX90 shows enhanced selectivity for polyunsaturated FAME and the selectivity can be tuned with film thickness.
- BPX90 is effective for the separation of cis and trans isomers and positional isomers of FAME analytes.

FAME Polarity Test

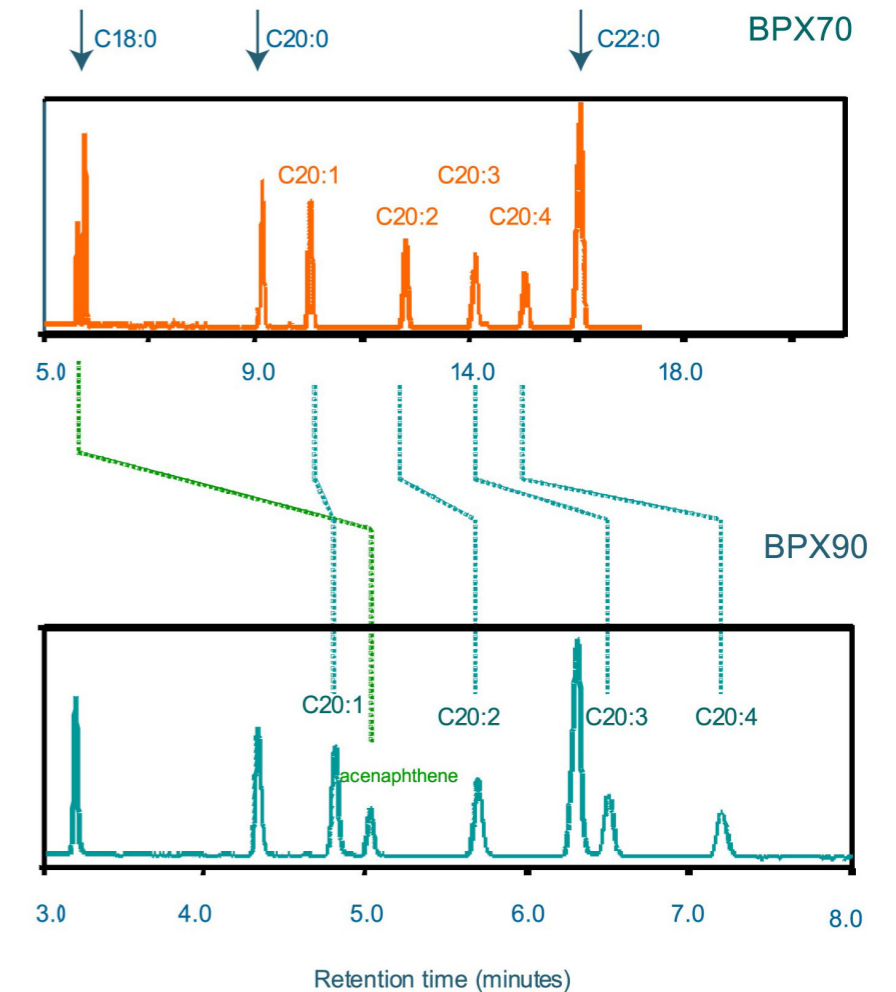


Figure 2. C18-C22 FAME test mixture. Columns 30 m x 0.25 mm ID x 0.25 μ m. Isothermal: 180 °C. Injector: 240 °C. Detection FID at 280 °C.