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 µm. 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.

FAME Polarity Test

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

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.