High-Speed Separation of Water-Soluble Vitamins with Ion-Pairing Chromatography

Application
Food Analysis
Robert Ricker

The rapid separation and detection of vitamins is becoming increasingly important to both food and pharmaceutical industries, as well as basic research. Water-soluble vitamins can be easily separated using reverse-phase ion-pairing chromatography. Four B vitamins, folic acid and vitamin C were analyzed in less than 5 minutes using a 75 mm SB-C8 column.

Highlights

• Short run times and excellent peak shape of water-soluble vitamins are achieved using a low-pH mobile phase and a short (75 mm) ZORBAX SB-C8 column with small-particle packing (3.5 µm).

• ZORBAX StableBond technology offers reproducibility and column stability even at low pH (0.1% phosphoric acid) and with ion-pairing agents.

Conditions:
ZORBAX SB-C8 (4.6 x 75 mm, 3.5µm) (Agilent P/N: 866953-906) Mobile Phase: 10mM Hexane Sulfonate with 0.1% Phosphoric Acid:MeOH (74:26) Injection volume 10 µL, 1 mL/min, Ambient, Detect: UV(245 nm)