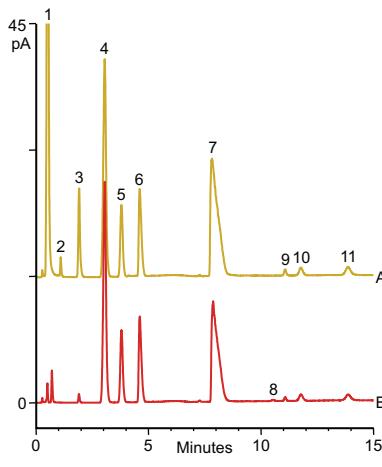


Electrolytes in Sports Beverages Using Acclaim Trinity P2



Column: Thermo Scientific™ Acclaim™ Trinity™ P2, 3 μ m
 Dimensions: 3.0 \times 50 mm
 LC System: Thermo Scientific™ Dionex™ UltiMate™ 3000 RS
 Mobile Phases: A: Water
 B: 100 mM Ammonium formate, pH 3.65
 Gradient: -8.0 0.0 1.0 11.0 20.0
 %A 90 90 90 0 0
 %B 10 10 10 100 100
 Flow: 0.60 mL/min
 Temperature: 30 °C
 Injection: 2 μ L
 Detector: Thermo Scientific™ Dionex™ Corona™ Veo™ (evaporator 55 °C, data rate 5 Hz, filter 2 sec, power function 1.5)
 Sample: A. Sports drink (orange flavor)
 B. Sports drink, zero-calorie (fruit punch flavor)
 Sample prep: Decolorized with Thermo Scientific™ Dionex™ OnGuard™ II P cartridge

Peaks: 1. Sugars 7. Citrate
 2. Ascorbic acid 8. Acesulfame
 3. Phosphate 9. Unknown
 4. Sodium 10. Magnesium
 5. Potassium 11. Calcium
 6. Chloride

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Sports beverages are advertised to replenish electrolytes after vigorous exercise. The product labels indicate they contain sodium, potassium, magnesium and calcium. The Acclaim Trinity P2 is the latest member of the Trinity family that is designed to resolve a broad range of anions and cations, mono- or multi-valent, in a single analysis using a simple gradient method. The Corona Veo detector provides sensitive, convenient detection of inorganic ions. The simple buffer gradient verifies the label claims for these products. For this application, the OnGuard II P cartridge was used to remove artificial colors.