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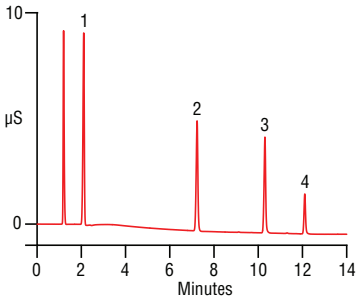
Tetra-alkylammonium Salts on a Thermo Scientific™ Acclaim™ Surfactant Column with Suppressed Conductivity Detection



Column:	Thermo Scientific™ Acclaim™ Surfactant 5 µm, 4.6 × 150 mm
Pump:	Thermo Scientific™ Dionex™ ICS-3000 DP
Mobile Phases:	(A) Water (B) 100 mM formic acid (C) 70:30 acetonitrile:water (v/v)
Flow:	1.0 mL/min

Gradient Times:	–5	0	10	14
%A:	80	80	30	30
%B:	15	15	15	15
%C:	5	5	55	55

Temperature:	Dionex ICS-3000 DC at 30 °C
Injection:	Dionex ICS-3000 AS autosampler; 15 µL
Detector:	Suppressed conductivity
Suppressor:	Thermo Scientific™ Dionex™ CSRS™ ULTRA II 4 mm, external water mode, 3.0 mL/min, 44 mA
Peaks:	200 µg/mL each 1. Tetrabutylammonium chloride 2. Tetrapentylammonium bromide 3. Tetrahexylammonium bromide 4. Tetraheptylammonium bromide

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Tetra-alkyl ammonium compounds are especially difficult to measure because of their lack of a useful UV chromophore. Ordinary HPLC columns don't cleanly resolve these compounds, and usually the analyte peaks tail severly. The Acclaim Surfactant column provides good peak shapes and resolution for these salts. Suppressed conductivity can detect as little as 15 ng on column.