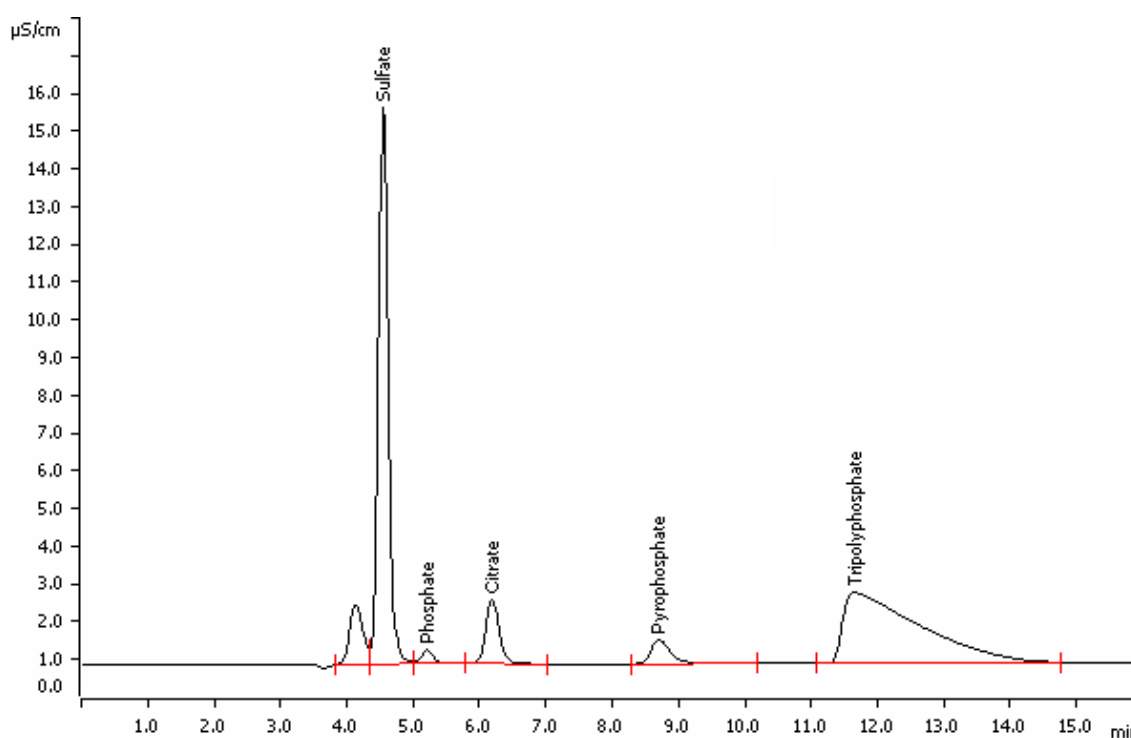


Anions in washing powder using anion chromatography with an MSM-HC suppressor



The high-capacity suppressor MSM-HC allows to run analyses with high eluent concentrations, e.g., sodium hydroxide eluents. The determination of anions in washing powder is a typical example where the high pH of NaOH is required for the separation of polyphosphates.

Results

Anion	[g/kg]	RSD (% , n = 9)
Sulfate	73.0	0.11
Phosphate	4.7	0.44
Citrate	29.9	0.27
Pyrophosphate	23.1	1.31
Tripolyphosphate	178.0	1.63

Method description

Sample

Washing powder

Sample preparation

0.2 g/L sample in ultrapure water. Injected over a IC-RP sample preparation cartridge.

Column

Metrosep A Supp 3 - 250/4.6	6.1005.320
Metrosep RP Guard 2/3.5	6.1011.030

Solutions

Eluent	22.5 mmol/L sodium hydroxide
Regenerant	100 mmol/L sulfuric acid
Rinsing solution	Ultrapure water

Analysis

Suppressed conductivity

Parameters

Flow rate	1.0 mL/min
Injection volume	20 µL
P _{max}	20.0 MPa
Recording time	16 min
Column temperature	30 °C



Instrumentation

850 Professional IC Anion – MSM-HC – MCS	2.850.2070
858 Professional Sample Processor – Pump	2.858.0020