

IC Application Note No. S-209

Title: Fluoride, methysulfonic, ethyldisulfonic and methyldisulfonic acid in chromium plating baths

Summary: Determination of fluoride, MSA (methylsulfonic acid), EDSA (ethyldisulfonic acid) and MDSA (methyldisulfonic acid) using anion chromatography with conductivity detection after chemical suppression.

Sample: Synthetic chromium plating bath

Sample Preparation: For real samples: Dilution 1 : 20'000, Metrohm Inline Cation Exchange to remove metal cations

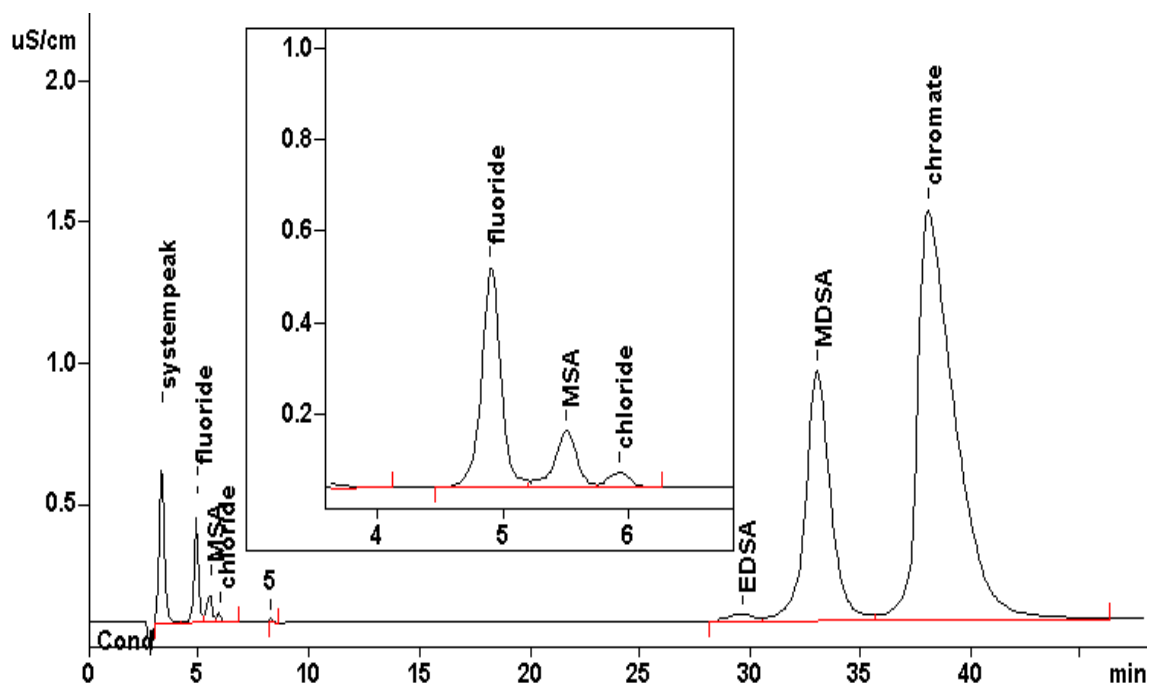
Column: 6.1005.320 Metrosep A Supp 3

Eluent: 1.0 mmol/L sodium carbonate
4.0 mmol/L sodium hydrogencarbonate, **30% acetone**

Suppressor: Metrohm Suppressor Module (MSM, 50 mmol/L sulfuric acid)

Flow: 1.0 mL/min

Injection Volume: 20 μ L



Results:	Fluoride mg/L	MSA mg/L	Chloride mg/L	EDSA mg/L	MDSA mg/L	Chromate mg/L
Injected solution	1.0	1.0	n.q.	1.0	1.0	125