

IC Application Note No. U-1

Title: Nickel, zinc, cobalt, iron(II) and manganese in lithium bromide using post-column reaction

Summary: Determination of nickel, zinc, iron(II) and manganese in lithium bromide using cation chromatography with UV/VIS detection (520 nm) after post-column reaction.

Sample: Lithium bromide

Sample Preparation: 10 g/L lithium bromide diluted 1 : 45 with 20 mmol/L ascorbic acid

Column: 6.1010.220 Metrosep C 2 – 150

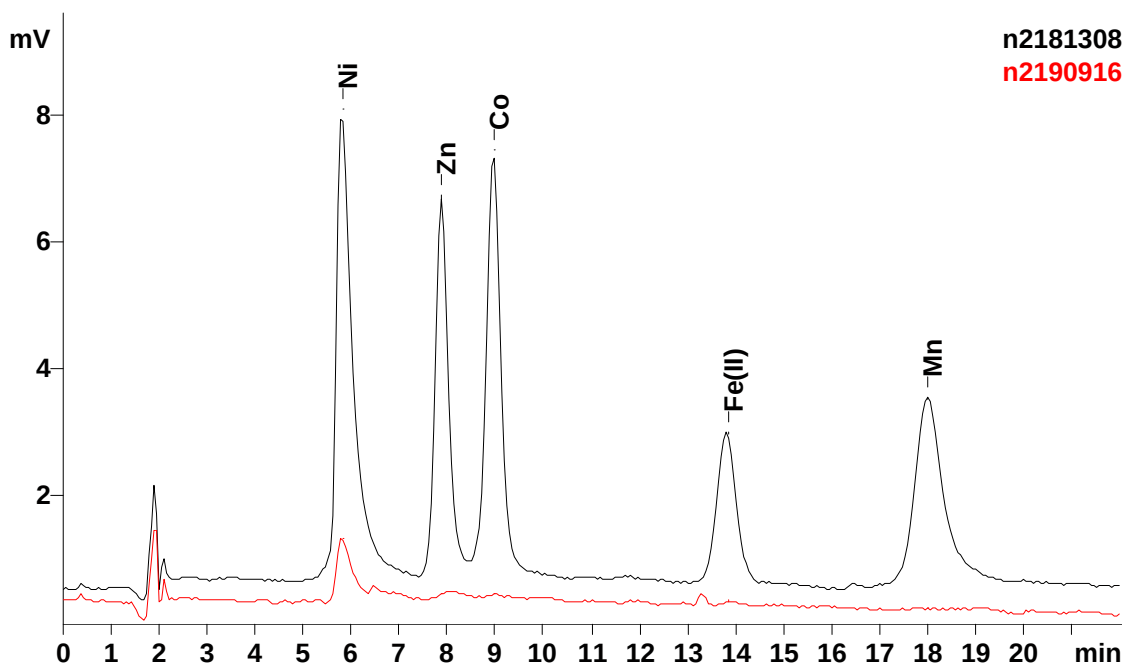
Eluent: 1.75 mmol/L oxalic acid acid, 2.0 mmol/L ascorbic acid

Flow: 1.0 mL/min

PCR reagent: 0.2 mmol/L PAR, 2.44 mol/L ammonia, 1 mol/L acetic acid

PCR Flow: 0.5 mL/min

Injection Volume: 20 µL



Results:	Nickel µg/L	Zinc µg/L	Cobalt µg/L	Iron(II) µg/L	Manganese µg/L
Sample (n2190916) in 10 g/L sol.	995	n.d.	n.d.	n.d.	n.d.
Spiked (n2181308) in injected sol.	172	150	150	150	150