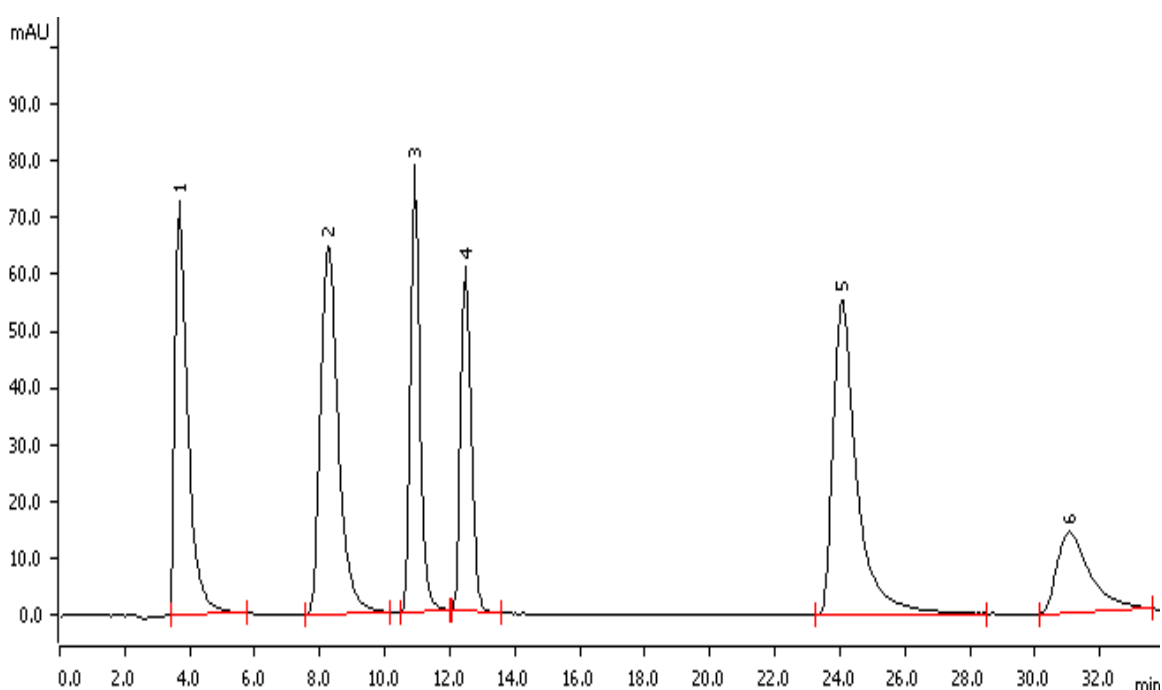


# Transition metal cations applying UV/VIS detection after post-column reaction with PAR (4-(2-pyridylazo)resorcinol)



The Metrosep C 4 columns are mainly used for the separation of alkali and alkaline earth metal cations including ammonium and organic amines. Additionally transition metals may be determined.

## Results

Peak Number	Component	Concentration	Peak Number	Component	Concentration
1	Cu <sup>2+</sup>	0.500 mg/L	4	Co <sup>2+</sup>	0.250 mg/L
2	Ni <sup>2+</sup>	0.500 mg/L	5	Mn <sup>2+</sup>	0.250 mg/L
3	Zn <sup>2+</sup>	0.250 mg/L	6	Cd <sup>2+</sup>	0.250 mg/L

# Method description

## Sample

Standard solution

## Sample preparation

Direct injection

## Column

Metrosep C 4 - 250/4.0	6.1050.430
Metrosep BP 1 Guard/2.0	6.1015.100

## Solutions

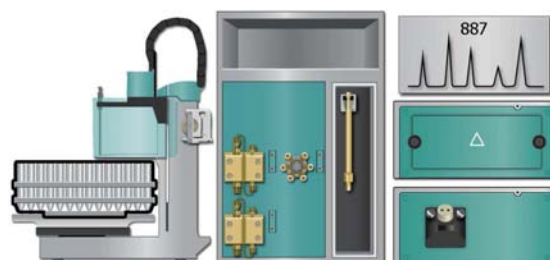
Eluent	2.5 mmol/L oxalic acid
Post-column reagent	0.15 mmol/L PAR, 0.4 mol/L ammonia, 80 mmol/L nitric acid

## Analysis

VIS detection	500 nm
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## Parameters

Flow rate column	0.9 mL/min
Flow rate PCR	0.2 mL/min
Injection volume	100 µL
P <sub>max</sub>	20.0 MPa
Recording time	35 min
Column temperature	30 °C
PCR temperature	30 °C



## Instrumentation

850 Professional IC Cation – HP Gradient	2.850.1220
858 Professional Sample Processor	2.858.0020
887 Professional UV/VIS Detector	2.887.0010
886 Professional Reactor	2.886.0110