

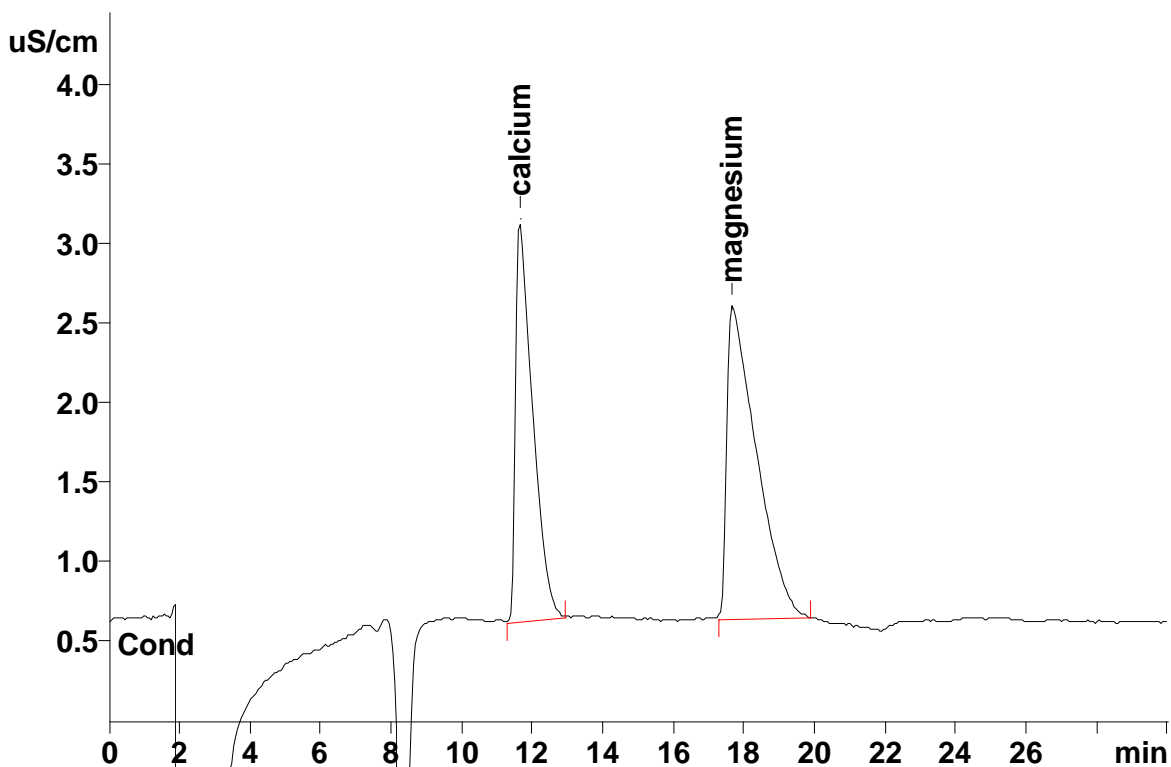
IC Application Note No. C-73

Title: Calcium and magnesium in dolomite

Summary: Determination of calcium and magnesium in a dolomite sample using cation chromatography with direct conductivity detection.

Sample: Dolomite ($\text{CaMg}(\text{CO}_3)_2$)
Sample Preparation: 136.5 mg of the sample dissolved in 4 mL 1 mol/L nitric acid and made up to 100 mL with ultrapure water. A 2 mL aliquot is further diluted to 25 mL.

Column: 6.1010.230 Metrosep C2 – 250
Eluent: 6.0 mmol/L tartaric acid, 1.125 mmol/L dipicolinic acid, 20% acetonitrile
Flow: 1.0 mL/min
Injection Volume: 20 μL



Results:	Calcium expected mg/L	Calcium found mg/L / %	Magnesium expected mg/L	Magnesium found mg/L / %
In the solution	23.70	24.18 / 102.0	14.41	13.87 / 96.3