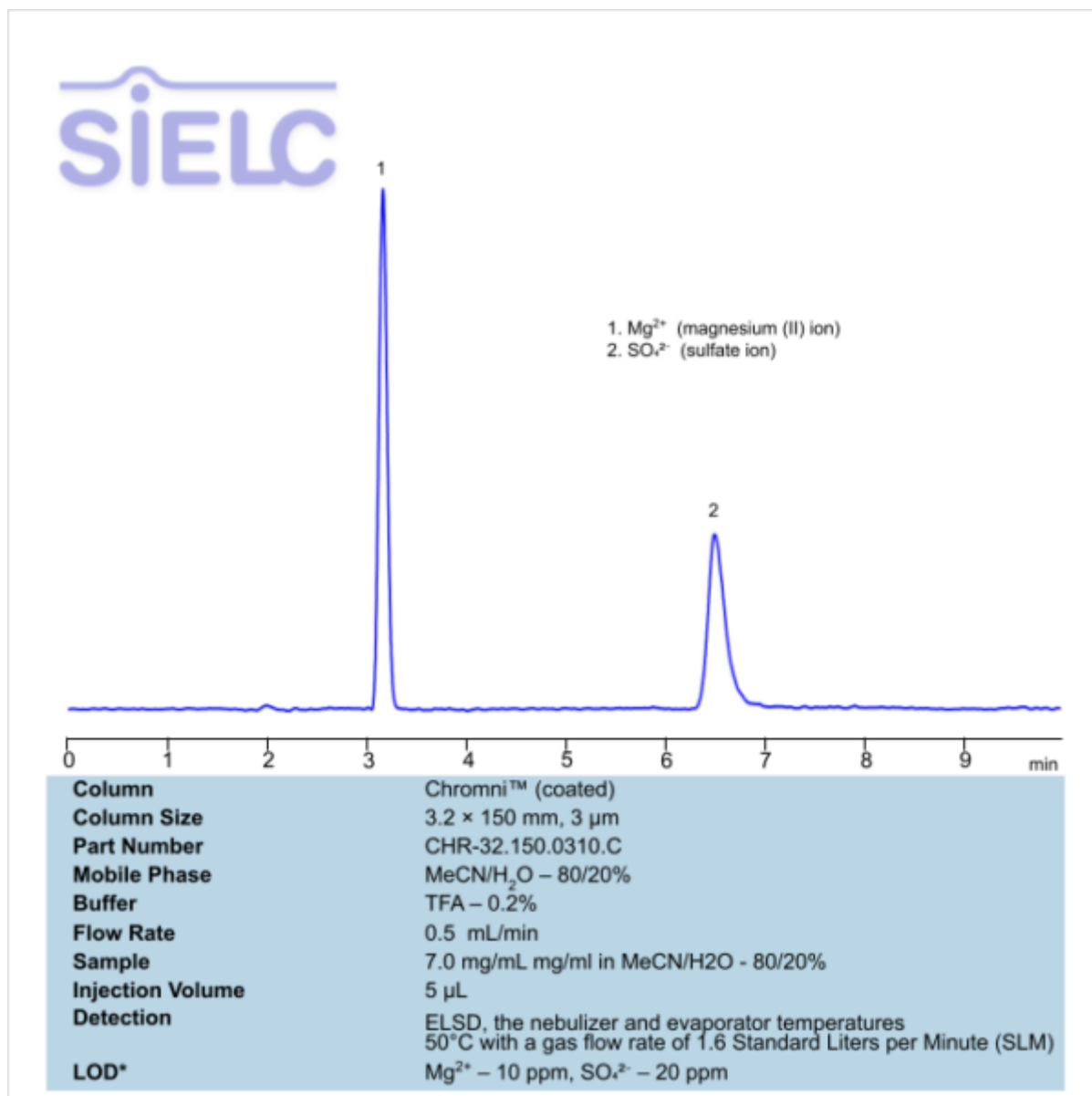


HPLC ELSD Method for Simultaneous Determination of Magnesium (II) and Sulfate ions on Chromni Column

<https://sielc.com/hplc-elsd-method-for-analysis-of-magnesium-and-sulfate>

Chromatogram



Description

· High Performance Liquid Chromatography (HPLC) Method for Analysis of Magnesium , Sulfate .

Magnesium is an element with the symbol Mg . Magnesium ion has the chemical formula of Mg^{2+} . It is a shiny grey metal with a high chemical reactivity, but low density and melting point. While magnesium is abundant in the earth's crust, it is produced in the cosmos in large, aging stars. It is primarily used as a structural metal in a large variety of contexts from aircrafts to light sources and chemical reagents.

Sulfate is an ionic chemical with the formula SO_4^{2-} . In nature, it is usually found in geodes like gypsum. It is also created in atmosphere from sulfur dioxide. It is used for a variety of applications, but most notably, coloring wood and creating light-reflecting paints.

Magnesium , Sulfate can be retained and analyzed using the Chromni stationary phase column. The analysis utilizes a gradient method with a simple mobile phase consisting of water and acetonitrile (MeCN). Detection is performed using LC MS.

Method Parameters

Mobile Phase	MeCN/H ₂ O
Buffer	TFA – 0.2%
Flow Rate	0.5 ml/min
Detection	ELSD, the nebulizer and evaporator temperatures 50°C with a gas flow rate of 1.6 Standard Liters per Minute (SLM)
LOD*	Mg ²⁺ – 10 ppm, SO ₄ ²⁻ – 20 ppm
Class of Compounds	Ions
Analyzing Compounds	Magnesium, Sulfate

HPLC Column Used

Chromni, 3.2 x 150 mm, 3 µm, 100 Å, surface coated

[Order this column at hplc-shop.de →](http://hplc-shop.de)