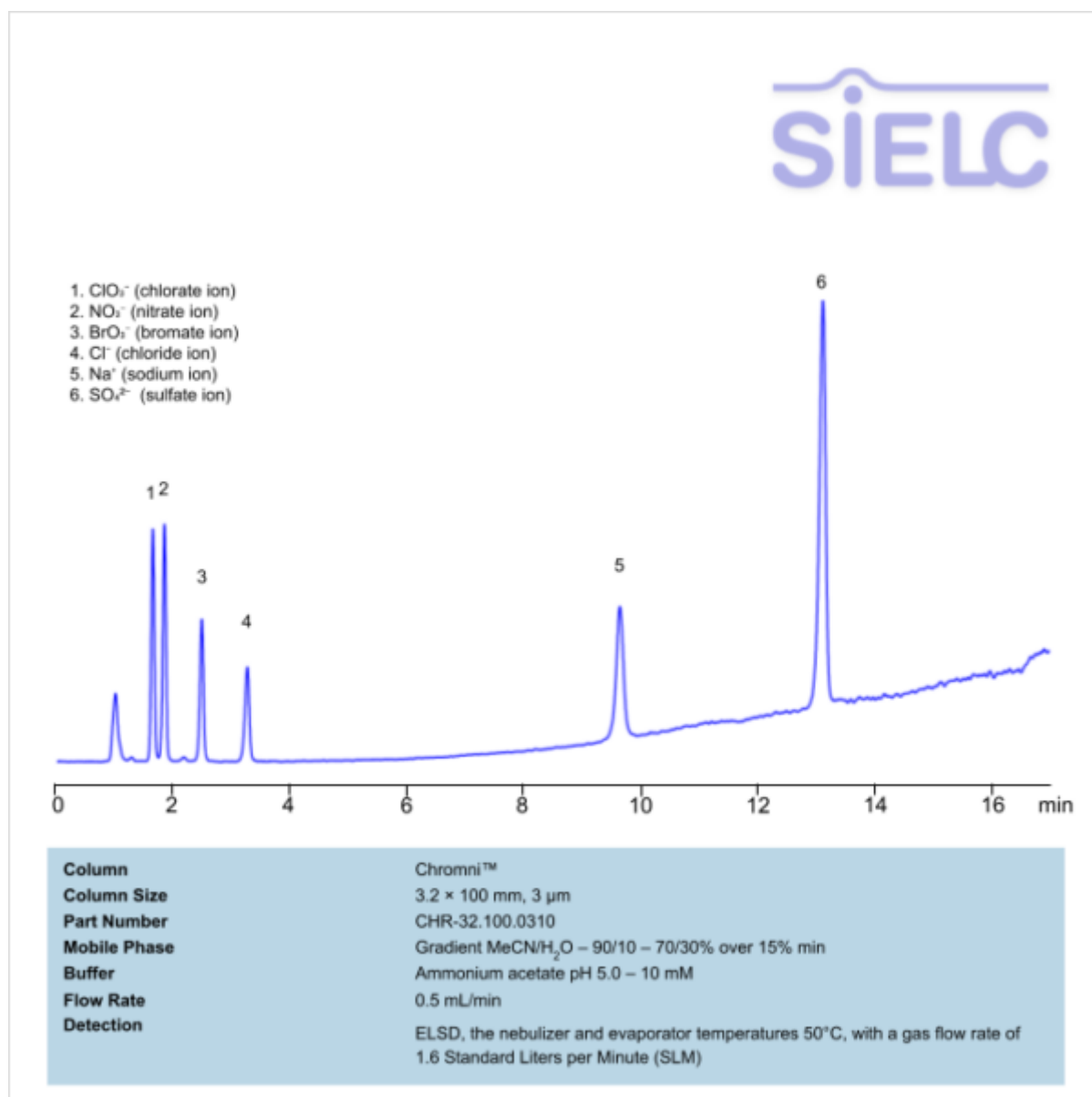


ELSD HPLC Method for Analysis of Inorganic Ions on Chromni Column

<https://sielc.com/hplc-elsd-of-inorganic-ions>

Chromatogram



Description

High Performance Liquid Chromatography (HPLC) Method for Analysis of Chlorate , Nitrate , Bromate , Chloride , Sodium , Sulfate .

Chlorate is a compound with the chemical formula ClO_3^- . It is an oxidizer that works on Large variety of organics and other easily oxidized materials. Historically, it was used in pyrotechnics, but it faded out of use due to Chlorate's instability. Magnesium chlorate has been found on Mars.

Nitrate, NO_3^- , is a compound of nitrogen and oxygen. It is essential as a nutrient in plants; therefore, it is often used in fertilizers. It is easily found in leafy greens. While it is important for cardiovascular health, too high of exposure to it can be dangerous.

Bromate is an oxyanion with the chemical formula BrO_3^- . It is formed in water through a reaction of ozone and bromide. It is suspected to be a human carcinogen.

Chloride is typically used to refer to a compound or molecule that contains a chlorine anion: Cl^- . It is an electrolyte that is essential for bodily functions including blood pH, fluid balance, cellular functions, and more. Imbalance of chloride can indicate underlying health problems.

Sodium, which has a chemical symbol of Na , is a soft alkali metal that is highly reactive. It is found in abundance in everyday materials like table salt, sea water, and even the Earth's crust. It is crucial for the body's function and fluid balance.

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.

Method Parameters

Mobile Phase	Gradient MeCN/H ₂ O – 90/10-70/30% over 15 min
Buffer	Ammonium Acetate pH 5.0 – 10 mM
Flow Rate	0.5 mL/min
Detection	ELSD
Class of Compounds	Ions
Analyzing Compounds	Chlorate, Nitrate, Bromate, Chloride, Sodium, Sulfate

HPLC Column Used

Chromni, 3.2 x 100 mm, 3 μm , 100 Å, dual ended

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