

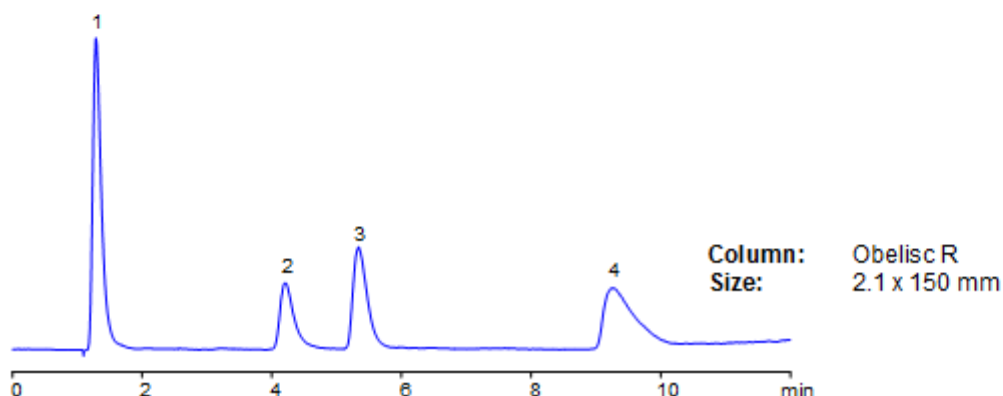
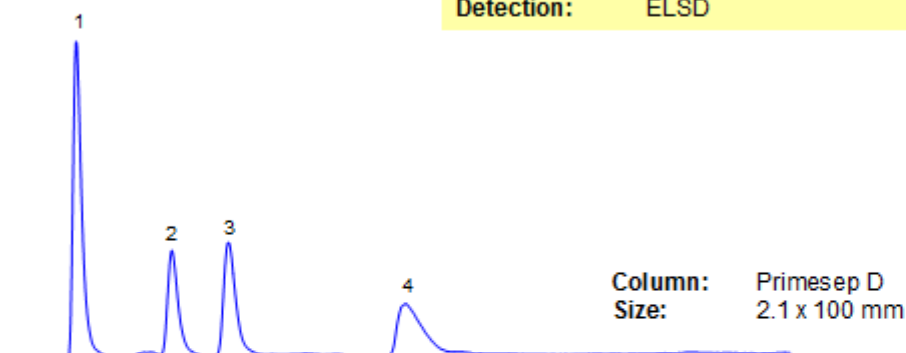
Separation of Chlorate, Perchlorate, and Phosphonate Ions on Obelisc R Column

<https://sielc.com/Application%20Separation%20of%20Chlorate%20Perchlorate%20and%20Phosphonate%20Ions>

Chromatogram

1. Sodium
2. Phosphonate ion
3. Chlorate ion
4. Perchlorate ion

Mobile phase: MeCN gradient from 10% to 40 % in 12 min,
AmFm pH 2.3 gradient from 30 mM to 80 mM in 12 min
Flow: 0.4 mL/min
Detection: ELSD



Description

High Performance Liquid Chromatography (HPLC) Method for Analysis of Chlorate , Perchlorate , Phosphonate , Sodium .

The ionic forms of Chlorate , Perchlorate , and Phosphonates are useful in many industries including medicine, paper and use in explosives. Due to their lack of UV activity, an ELSD was used to detect both the anions and cations of all three sodium salts. The ions were retained on both Primesep D and Obelisc R columns. Primesep D is a reverse phase column with embedded basic ion-pairing groups. Obelisc R is also a reverse phase column, but can be additionally tuned due to embedded ionic groups and a hydrophobic chain.

Method Parameters

Mobile Phase	Gradient MeCN – 10-40%, 12 min
Buffer	Gradient AmFm pH 2.3- 30-80 mM, 12 min
Flow Rate	0.4 ml/min
Detection	ELSD
Class of Compounds	Hydrophilic, Ionizable

Analyzing Compounds

Chlorate,Perchlorate,Phosphonate,Sodium

HPLC Column Used

Obelisc R, 2.1 x 50 mm, 5 µm, 100 A, dual ended

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