# HPLC Separation of Potassium, Perchlorate, Methanesulfonic, Chloride, Bromide, and Nitrate Ions on Obelisc N

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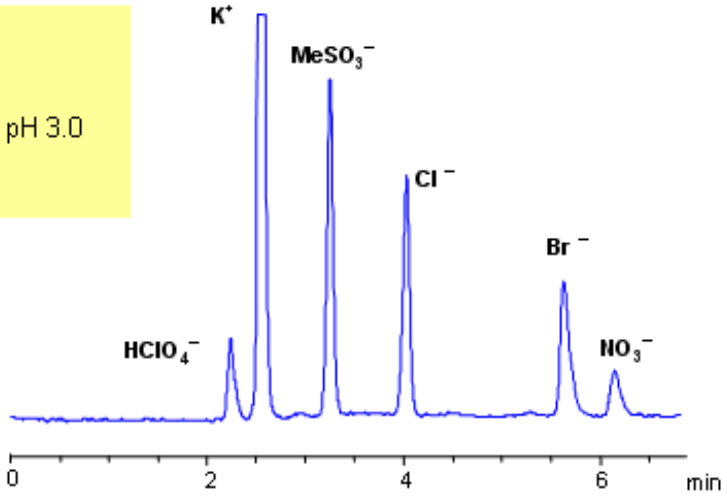
| **Column:** | Obelisc N |
| **Size:** | 150 x 4.6 mm |
| **Mobile phase:** | MeCN 30%, AmFm 40 mM pH 3.0 |
| **Flow:** | 1.0 mL/min |
| **Detection:** | ELSD 50C |




Ion chromatography is usually used for analysis of hydrophilic organic and inorganic ions. Same separation can be achieved on HILIC/mixed-mode Obelisc N HPLC columns. Obelisc N HPLC columns have very polar groups on their surface: one of the groups is basic and the other acidic. In case of low organic concentration, two groups are connected by hydrophilic linker. Obelisc N column can be used as cation-exchange and anion-exchange column. This allows to separate positively and negatively charged molecules in one run. Five anions (chloride, bromide, methanesulfonate, nitrate and perchlorate) along with one cation (sodium) were separated in one run. Method is compatible with ELSD, CAD and LC/MS and can be used for analysis of various hydrophilic and hydrophobic cations and anions in one HPLC run.

SIELC has developed the Obelisc™ columns, which are mixed-mode and utilize Liquid Separation Cell technology (LiSC™). These cost-effective columns are the first of their kind to be commercially available and can replace multiple HPLC columns, including reversed-phase (RP), AQ-type reversed-phase, polar-embedded group RP columns, normal-phase, cation-exchange, anion-exchange, ion-exclusion, and HILIC (Hydrophilic Interaction Liquid Chromatography) columns. By controlling just three orthogonal method parameters - buffer concentration, buffer pH, and organic modifier concentration - users can adjust the column properties with pinpoint precision to separate complex mixtures.

## Method Parameters

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| **Column** | Obelisc N, 4.6×150 mm, 5 µm, 100 Å |
| **Mobile Phase** | MeCN/H2O |
| **Buffer** | AmFm |
| **Flow Rate** | 1.0 mL/min |
| **Detection** | ELSD |

Quelle: https://sielc.com/Application-HPLC-Separation-of-Potassium-Perchlorate-Methanesulfonic-Chloride-Bromide-and-Nitrate-Ions-on-Obelisc-N