

## Fully automatic sample preparation for ion chromatography

**Complex matrices carrying high organic loads such as waste water, soil eluates or dairy products pose a challenge to ion chromatography as they make direct analysis of samples impossible. Hence, thorough sample preparation is a must. If carried out manually, these sample preparation steps are both time-consuming and error prone.**

Metrohm's Inline Sample Preparation (MISP) provides an elegant answer sparing users from manual sample preparation. MISP stands for a range of methods that allow users to fully automate the preparation of difficult samples thus saving a great deal on time and money while improving the accuracy of their analyses:

**Metrohm inline ultrafiltration** reliably removes particles from the sample. As a result the analytical column is protected from contamination and its lifetime considerably increased.

**Metrohm inline dialysis** is another technique effectively removing particles, oil drops and colloids from the sample to be analyzed. Emulsions, samples containing fats and proteins, body fluids and strongly polluted wastewater can be reliably determined without damaging the column.

**Metrohm inline dilution** provides for automatic dilution of the sample depending on the predefined concentration limits. Even the dilution factor is determined automatically making sure that results lie always within the calibration range and thus are correct.

**Metrohm inline matrix elimination** allows the matrix to be removed automatically without requiring the use of cartridges. Ion analysis in organic solvents is one of the applications.

**Metrohm inline preconcentration** uses a preconcentration column and is ideally suited for trace analysis down to the ng/L concentration range.

**Metrohm inline calibration** allows to calibrate any standard concentration in the ppt range by using one single standard solution at the ppb level.

**Metrohm inline neutralization** adjusts the pH of samples in order to prevent interferences with the analysis of anions. When combined with inline preconcentration, inline neutralization makes trace anion analysis possible.

