Fundamentals of Ion Chromatography

This in-depth, three-day course provides a comprehensive understanding of Metrohm ion chromatography (IC) systems, focusing on flow path, functionality, and essential maintenance to ensure optimal performance. Participants will gain a solid foundation in the operation of IC instruments through detailed instruction and hands-on practice using MagIC Net software to manage analyses, data processing, and system control. The training is designed to enhance user confidence in operating the system effectively, regardless of prior experience with ion chromatography.

Throughout the course, attendees will engage in interactive, hands-on exercises that reinforce key concepts, such as routine operation, troubleshooting, and preventative maintenance. Our expert instructors will guide participants through lecture-style presentations and real-world scenarios, helping them develop the skills needed to maintain system accuracy and reliability. Dedicated Q&A sessions provide opportunities to address specific challenges and learning needs. This course is highly recommended within six months of system installation to establish best practices or at any time to train new operators, ensuring smooth and efficient laboratory workflows.

Agenda

***Please note this agenda is a general overview & may vary slightly from session to session based on instructor discretion, available instruments and customer needs.**

Day One:

- Power Point presentations (IC Flow Path & Hardware, MagIC Net Overview).
- Lecture: preparing for IC analysis, flow path, best practices for equilibration and system prep, device connectivity, reagent/eluent preparation.
- Power Point presentation (Calibration Principles).
- Lab practical: equilibration and preparation for operation, prepare calibration standards, purging IC pump, leak and sample flow checks, set-up determination series (940 Professional IC).

Day Two:

- Lecture: data export, basic database features, calibration by batch reprocessing.
- Power Point presentation (IC Maintenance Guide, IC Troubleshooting)
- Lab practical: creation of databases, structures and features, monitoring and backup, best maintenance practices, automation, addressing common issues (940 Professional IC, 858 Sample Processor).

Day Three:

- Lecture: evaluating reproducibility & system performance.
- Practical exam.
- General Q&A.