

# Titration/Ion Chromatography System

## Product Spotlight

METTLER TOLEDO titration with Thermo Scientific™ Dionex™ Ion Chromatography combines proven technology from industry leaders. Thermo Scientific™ Dionex™ Chromeleon™ Chromatography Data System manages the operation of the entire system and produces a combined report automatically.

The time spent to run samples on multiple instruments and combine the results is completely eliminated. Data transcription errors are also eliminated. At any given time, the Excellence titrator and ion chromatographs can be operated separately or in tandem.

### Parameters measured:

pH	Anions by IC (F <sup>-</sup> , Cl <sup>-</sup> , Br <sup>-</sup> , NO <sub>3</sub> <sup>-</sup> , SO <sub>4</sub> <sup>2-</sup> , NO <sub>2</sub> <sup>-</sup> , PO <sub>4</sub> <sup>3-</sup> )
Conductivity	Cations by IC (Na <sup>+</sup> , K <sup>+</sup> , Mg <sup>2+</sup> , Ca <sup>2+</sup> )
Sample temperature	Total hardness (calculated from IC values of Mg <sup>2+</sup> , Ca <sup>2+</sup> )
Total alkalinity by titration	Ion balance
Carbonate hardness	

### System highlights:

Completely integrated system	System controlled by one software	Ease of operation; saves time and money.
Chromeleon software system controller	Well known, easy to use software	Enhanced customer familiarity and confidence in use
Bidirectional communication	IC and titrator wait for each other	Saves time- samples are injected as soon as possible
Integrated, automated data processing	One report contains all results	Reporting simplicity; reduced errors due to data transcription
Chromeleon audit trails, control charts	Validates system parameters	Direct traceability of data
Automatic selection of sample loop (anions)	No analysis repetition or wasted runs; sample injected only once	Saves time and money
Automated IC standards dilution	Convenient calibration routine	Reduces labor time, high quality calibration
Automated pH sensor check	Performance of the sensor is validated	Improved reliability and data quality
RFIC-ER compatible	Eluent can be used for up to four weeks of continuous operation	Less operator attention needed, saves time and money
Proven solution with sales and support from the two vendors	Unified support strategy	Increased confidence in system support

## Who Will Need This?

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### Laboratories reporting water analysis results on a relatively large number of samples (<20/day)

- Titration results (acid capacity)
- Sample pH, conductivity and temperature
- Individual ion concentrations (anions and/or cations)
- Total hardness
- Ion balance

### Who value

- Reduced sample manipulation (single autosampler load)
- Single point system management and control (Chromeleon)
- Automated results reporting (Chromeleon)
- Automated standards dilution for ion chromatography
- Ability to handle wide range of anion concentrations (conductivity-based selection of injection loop)
- Automated results entry to LIMS
- Future expandability – IC and titration can be merged in the future if the full solution is not needed now

