

# VoltIC Professional



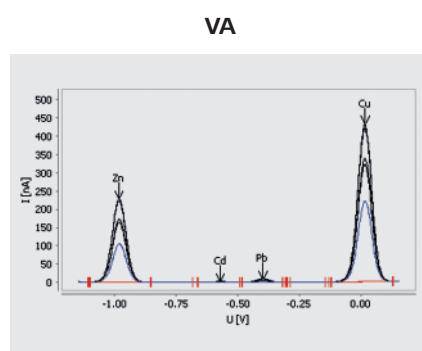
The flexible solution for combined trace ion analysis

# VoltIC Professional – voltammetry and ion chromatography combined

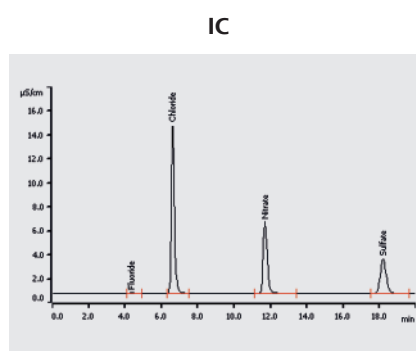
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«Two in one» – that's the principle of VoltIC Professional. Integrating ion chromatography and voltammetry by sharing the same sample processor and software, VoltIC Professional brings together the particular strengths of both techniques in a single, fully automated system – for virtually unlimited possibilities in trace ion analysis. The user benefits are evident:

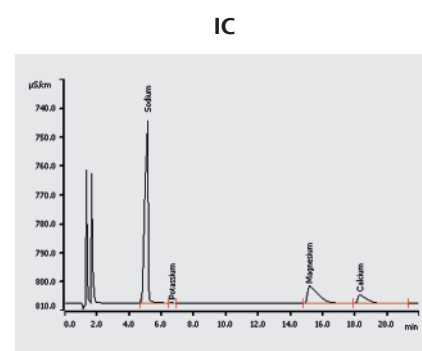
- Samples need to be prepared only once for comprehensive analysis by both techniques
- Results for all parameters are presented in a single database
- Considerable time-savings due to convenient data handling



Transition metal analysis



Anion analysis



Cation analysis

The sample processor provides professional liquid handling for both units delivering the sample first to the ion chromatograph and immediately afterwards to the voltammetric measuring instrument for subsequent, simultaneous analysis. Both measuring devices perform the analysis independently from each other, which means that any single-method analysis on either the IC or the VA measuring instrument is also possible. All results are recorded in a single database, facilitating data handling.



### Fully automated VoltIC Professional 1:

940 Professional IC Vario TWO/SeS/PP in combination with the 858 Professional Sample Processor and the 884 Professional VA semiautomated and 843 Membrane Pump Station

## Your advantages of the VoltIC Professional

- Simultaneous trace analysis of anions, cations, and transition metals
- One database contains all results
- Fully automated analysis of up to 56 samples
- Efficient and cost-saving
- Easy extension of existing Metrohm devices to a complete VoltIC Professional system
- Flexible and independent operation of ion chromatograph and VA analyzer
- Flexible operation of sample processor
- One sample processor for two different measuring techniques
- MagIC Net software for system control and data management
- Full traceability of data
- Unique liquid handling based on Metrohm patented Dosino technology

Results				
Results				
Anions				
Component name	Retention time [min]	Height [ $\mu\text{S}/\text{cm}$ ]	Area [ $(\mu\text{S}/\text{cm}) \times \text{min}$ ]	Concentration [mg/L]
Fluoride	4.35	0.071	0.016	0.045
Chloride	6.61	13.950	2.659	8.203
Nitrate	11.67	5.960	1.511	8.158
Sulfate	18.17	2.885	1.063	4.855
Cations				
Component name	Retention time [min]	Height [ $\mu\text{S}/\text{cm}$ ]	Area [ $(\mu\text{S}/\text{cm}) \times \text{min}$ ]	Concentration [mg/L]
Sodium	5.13	63.091	14.755	110.414
Potassium	6.63	0.316	0.049	0.676
Magnesium	15.15	6.026	4.605	19.364
Calcium	18.29	2.953	1.927	16.626
Single results				
1_concentration Zn: 19.424 $\mu\text{g}/\text{L}$				
2_concentration Cd: N/A $\mu\text{g}/\text{L}$				
3_concentration Pb: 1.253 $\mu\text{g}/\text{L}$				
4_concentration Cu: 47.831 $\mu\text{g}/\text{L}$				

One database collects all results

### Applications

VoltIC Professional offers full flexibility for sample analysis as the sequence of sample handling can be programmed as required. Comprehensive analysis by IC and VA is possible just as well as single-method analysis by either one of the two techniques.

#### Following examples demonstrate the versatility of the VoltIC Professional:

Environment	anions, cations and transition metals in water
Plating industry	complexing agents and stabilizer in electrolytes (e.g., electroless nickel)
Power industry	anions and iron in water cycles (e.g., boiler feed water)



# Ordering information

## Packages

VoltIC Professional 1

## Optional

### Columns

6.1031.420	Metrosep A Supp 16 - 150/4.0
6.1031.500	Metrosep A Supp 16 Guard/4.0
6.1050.410	Metrosep C 4 - 100/4.0
6.1050.500	Metrosep C 4 Guard/4.0
6.1006.340	Metrosep A PCC 2 HC/4.0

### Suppressors

6.2832.000	MSM Rotor A
6.2842.000	MSM-HC Rotor A
6.2844.000	MSM-LC Rotor A
6.2842.020	Adapter sleeve for Suppressor Vario

### Accessories

6.5330.180	IC equipment: MiPT
6.5330.160	IC equipment: MiPCT-ME
6.5330.120	IC equipment: Inline Dilution

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