

851 Titrande / 852 Titrande



Top-class coulometers

851 Titrando and 852 Titrando extend and complete the Titrando family

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The advantages of the new coulometers

- Simultaneous coulometric and volumetric titrations with the 852 Titrando
- Bromine index
- Automatic start of titration
- Automatic reagent exchange



Coulometric titrations with the 851 Titrande

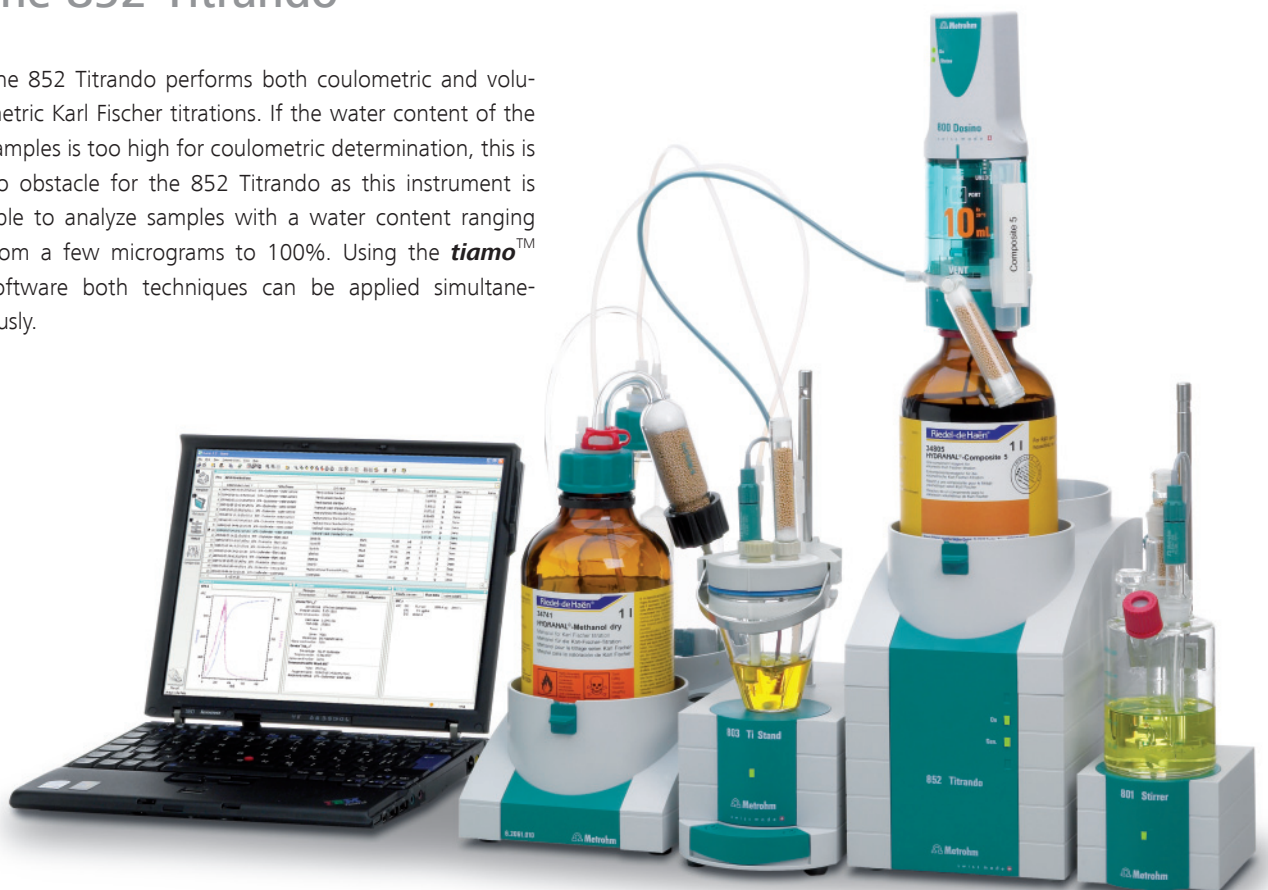
For trace concentrations (10 µg...10 mg absolute water content), coulometry is the ideal method for determining water in liquids, solids and gases. Furthermore, coulometry is an absolute method, so no titer determination is necessary.

With the 851 Titrande coulometric titrations can be performed easily and quickly.



Coulometric and volumetric titrations with the 852 Titrande

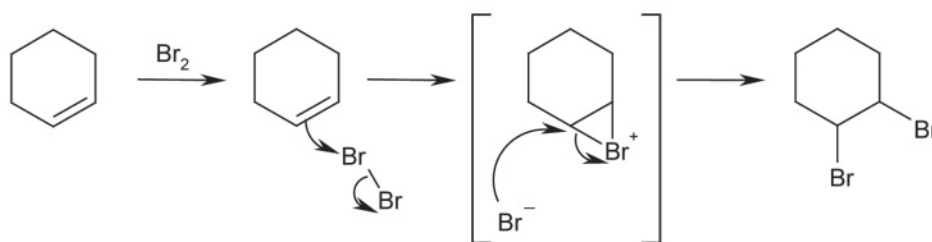
The 852 Titrande performs both coulometric and volumetric Karl Fischer titrations. If the water content of the samples is too high for coulometric determination, this is no obstacle for the 852 Titrande as this instrument is able to analyze samples with a water content ranging from a few micrograms to 100%. Using the **tiamo**TM software both techniques can be applied simultaneously.



Bromine index

The bromine index of a sample is a measure of the number of double bonds that are present. Just as iodine is produced in coulometric Karl Fischer titration, during the determination of the bromine index bromine is produced directly in the titration cell and reacts with the double bonds.

With the 851 and 852 Titrandos the bromine index can be determined coulometrically. The determinations require no further accessories – the indicator and generator electrodes and the titration cell can also be used for this application. Only the working medium needs to be changed.



Schematic of a bromine addition reaction

Automatic start of titration

It can happen very quickly that the sample is put into the titration vessel before the titration has been started. In this case, conditioning continues until the water in the sample has reacted with the added iodine. Subsequent calculations are impossible and the measurement has to be repeated.

With the 851 or 852 Titrando that can no longer happen. The instruments start the titration automatically as soon as sample is added. This means that you save reagents, sample and, above all, valuable time.



Automatic reagent exchange – safe handling of toxic reagents

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Using one of the four MSB ports, it is possible to connect Dosinos and Dosing Units to the new coulometers. In this way, the exchange of reagent can be automated, which means that the cell does not need to be opened, so no moisture can get in. This shortens the conditioning times after reagent exchange. Moreover, direct contact with toxic reagents is avoided.

The reagent exchange can be triggered by way of the number of determinations performed, the age of the reagent, its water capacity or the drift value. Of course, Dosinos and Dosing Units are also used to add sample solutions, standard solutions or auxiliary solutions such as solubilizers.

Automation pays dividends!

Increasing sample numbers, time-consuming sample preparation steps and unattended overnight operation are good reasons for using sample changers. Combined with the 814 USB Sample Processor, 815 Robotic USB Sample Processor XL and 874 USB Oven Sample Processor, the Titrandos offer a high degree of automation.





Ordering information

2.851.0010	851 Titrande, generator electrode with diaphragm
2.851.0110	851 Titrande, generator electrode without diaphragm
2.851.0020	851 Titrande with Touch Control, generator electrode with diaphragm
2.852.0050	852 Titrande, generator electrode with diaphragm
2.852.0150	852 Titrande, generator electrode without diaphragm
2.852.0160	852 Titrande with Touch Control, generator electrode without diaphragm

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