

Sulfur Titrator

Hydrogen sulfide and mercaptan sulfur in hydrocarbons and oils

Product description

The Sulfur Titrator is designed for the determination of sulfur compounds as hydrogen sulfide and mercaptan sulfur in liquid hydrocarbons and oils.

The measurement uses a volumetric titration method with silver nitrate solution in an anhydrous medium. This measurement generates silver sulfide (Ag_2S) and silver mercaptides.

The analysis must be done in an inert gas atmosphere to avoid an oxidation of sulfur compounds by air and thus false measurement results.

The device is conform to standards **ISO 3012, ASTM D 3227, UOP163, UOP212.**

The titration speed is precisely adjusted to the reaction rate with control algorithms. Two end points get indicated – first for hydrogen sulfide and second for mercaptan sulfur.

At the end of the measurement, results are shown in mg/kg (ppm) hydrogen sulfide and/or mercaptan sulfur or several other units.



Sulfur Titrator

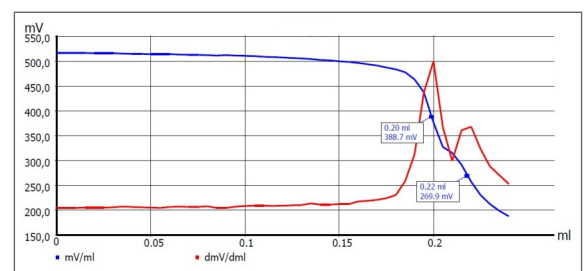
Applications

The Sulfur Titrator is suitable for analysis of

- fuels (gasoline, kerosines, aviation turbine fuels)
- volatile distillates, middle distillates
- liquified petroleum gas (LPG)
- hydrocarbon gases
- liquid hydrocarbons
- naphtha (petroleum)
- low boiling oils
- light cycle oils
- heavy cycle oils

Advantages

- Complete measuring system for the determination of hydrogen sulfide and mercaptan sulfur
- Fully-automatic volumetric titration
- Precise control of the titration parameters by special control algorithms
- Preset measurement method allows an immediate start
- The result output can be adjusted to your needs by using a formula generator



Titration graph of a sample

Details

The Sulfur Titrator consists of

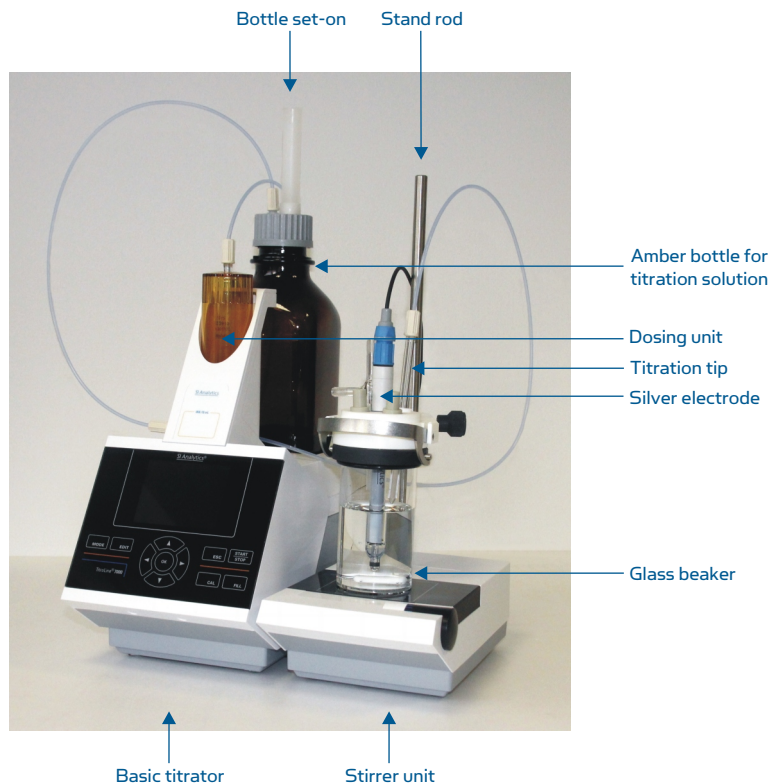
- an automatic volumetric titrator with potentiometric indication
- a titration vessel with stirrer unit

The determination of hydrogen sulfide/mercaptan sulfur is based on

- a potentiometric titration with silver nitrate solution in an anhydrous medium
- a precise indication by a selective silver electrode, which is stable over long periods

Steps of the analysis are

1. Standardization of the titration solution
2. Titration of oil sample or absorption liquid



Specifications

Measurement method:	Volumetric titration
Types of result:	mg/kg (ppm) hydrogen sulfide and/or mercaptan sulfur, formula generator available
Measuring range:	Hydrogen sulfide/sulfide: less than 1 to several thousand mass-ppm Mercaptan sulfur: 3 – 500 mass-ppm typically
Resolution of the display:	0.01 ppm
Power supply:	External plug-in power supply 100 - 240 V, 50/60 Hz
Power input:	30 VA
Stirrer connection:	12 V DC out, 500 mA
Dimensions:	30 x 45 x 30 cm (W x H x D), height with exchange unit
Weight:	Approx. 3.5 kg (with exchange unit and empty reagent bottle)

We are here for you



ECH Elektrochemie Halle GmbH
Otto-Eissfeldt-Str. 8
D-06120 Halle (Saale)
Germany
Tel.: +49 345 279570-0
Fax: +49 345 279570-99
E-mail: info@ech.de
Website: www.ech.de