

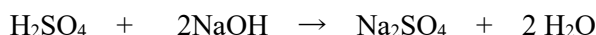
Application Memo

Concentration of Sulfuric Acid

| | |
|--------------------|-----------------------------------|
| Industry | Inorganic chemical industry |
| Instrument | Automatic potentiometric titrator |
| Measurement method | Acid-base titration |
| Standards | ISO6353-2 |

1. Overview

According to ISO 6353-2: 1983 Reagents for chemical analysis-Part2: Specifications -- First series, sulfuric acid diluted to 0.25mol/L is titrated with 0.1mol/L sodium hydroxide up to the endpoint, which is the maximum inflexion on the titration curve. The concentration of sulfuric acid solution is calculated from the titration volume.



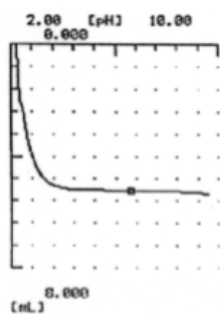
2. Apparatus

| | |
|-----------|--|
| Main unit | Automatic potentiometric titrator (preamplifier STD) |
| Electrode | Combined glass electrode Temperature compensation electrode |

3. Reagents

| | |
|---------|----------------------------|
| Titrant | 0.1 mol/L sodium hydroxide |
| Solvent | Pure water |

4. Example



—Titration curve—

—Measurement results—

| | Sample (mL) | Titer (mL) | H ₂ SO ₄ (mol/L) |
|---------|-------------|------------|--|
| 1 | 10.0 | 5.2336 | 0.2494 |
| 2 | 10.0 | 5.2052 | 0.2480 |
| 3 | 10.0 | 5.3057 | 0.2528 |
| Average | | | 0.2501 |
| SD | | | 0.0025 |
| RSD(%) | | | 0.99 |

Please feel free to contact us for any further information.
 <Contact> Kyoto Electronics Manufacturing Co., Ltd.
 Overseas Sales & Marketing Sect.
<http://www.kyoto-kem.com/en/contact/form.php>