

Application Memo

Quantification of TMAH

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

1. Overview

TMAH (tetramethyl ammonium hydroxide) is measured by titration with 0.1mol/L hydrochloric acid after the test sample is diluted with water. The endpoint is determined by Level Stop which is previously selected and preset in the titration system. The concentration of TMAH is calculated from the titration volume of hydrochloric acid solution.

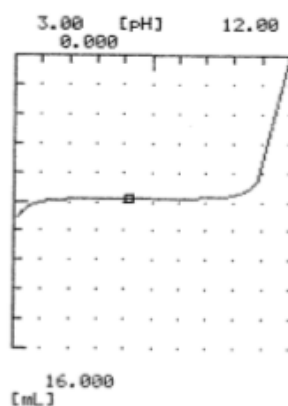
2. Apparatus

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

3. Reagents

| | |
|---------|-------------------------------------|
| Titrant | 0.1mol/L hydrochloric acid solution |
| Solvent | Pure water |

4. Example



—Titration curve—

| —Measurement results— | | | |
|-----------------------|------------|------------|----------|
| | Sample (g) | Titer (mL) | TMAH (%) |
| 1 | 3.0009 | 7.8519 | 2.3850 |
| 2 | 3.0244 | 7.9150 | 2.3855 |
| 3 | 3.0302 | 7.9286 | 2.3851 |
| Average | | | 2.3852 |
| SD | | | 0.0003 |
| RSD(%) | | | 0.01 |

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