

Application Memo

Quantification of Hydrochloric Acid

Industry	Inorganic chemical industry
Instrument	Automatic potentiometric titrator
Measurement method	Acid-base titration
Standards	ISO 6353-2

1. Overview

Hydrochloric acid is measured by titration with 0.1mol/L sodium hydroxide. The endpoint is the maximum inflexion on the titration curve. The hydrochloric acid concentration is calculated from the titration volume of sodium hydroxide.

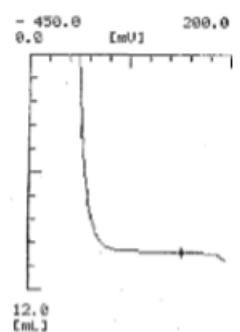
2. Apparatus

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

3. Reagents

Titrant	0.1mol/L sodium hydroxide
Solvent	Pure water

4. Example



—Measurement results—

	Sample (mL)	Titer (mL)	Hydrochloric acid (mol/L)
1	10.0	10.1384	0.1020
2	10.0	10.1155	0.1018
3	10.0	10.0817	0.1014
4	10.0	10.1241	0.1019
5	10.0	10.0815	0.1014
Average			0.1016
SD			0.0002
RSD(%)			0.2

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