

Application Memo**Determination of Hydrochloric Acid Concentration**

Industry	Inorganic chemical industry
Instrument	Automatic potentiometric titrator
Measurement method	Acid-base titration
Standards	GB/T 601

1. Overview

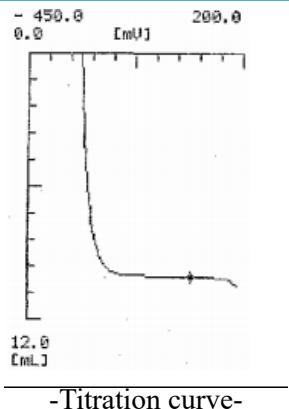
The concentration of 0.1mol/L hydrochloric acid solution is examined by titration with 1mol/L sodium hydroxide solution. The endpoint is the maximum inflection on the titration curve. The hydrochloric acid concentration is calculated from the titration volume of the sodium hydroxide solution.

2. Apparatus

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

3. Reagents

Titrant	0.1 mol/L sodium hydroxide
Additive:	Pure water

4. Example

—Measurement results—			
	Sample (mL)	Titer (mL)	Concentration (mol/L)
1		10.1384	0.1020
2	10	10.1155	0.1018
3		10.0817	0.1014
Average			0.1017
SD			0.0003
RSD(%)			0.3

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