

Application Memo

Nitric acid in Pickling Agent

Industry	Inorganic chemical industry
Instrument	Automatic potentiometric titrator
Measurement method	Neutralization titration
Standards	

1. Overview

After adding a sodium fluoride solution as a masking reagent to the diluted sample, nitric acid concentration is measured by titration with 1mol/L sodium hydride solution. The endpoint is the maximum inflexion on the titration curve. The nitric acid concentration is calculated from the titration volume of the sodium hydride solution.

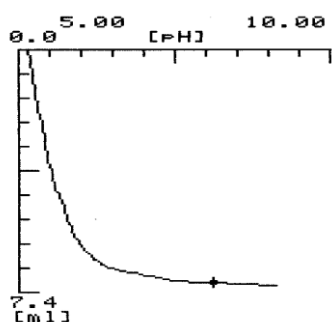
2. Apparatus

Main unit	Automatic potentiometric titrator
Electrode	pH glass electrode Ceramic reference electrode Temperature compensation electrode

3. Reagents

Titrant	1mol/L NaOH
Solvent	Water

4. Example



—Titration curve—

—Measurement results—

	Sample size (mL)	Titer (mL)	Concentration (%)
1	5.0	7.1377	8.994
2	5.0	7.1594	9.021
3	5.0	7.1578	9.019
Average			9.011
SD			0.015
RSD(%)			0.17

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