

Application Memo

Determination of Iron (II) Ion in Pickling Solution

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

1. Overview

After adding 2% sulfosalicylic acid and distilled water to the sample, iron (II) ion is measured by titration with 0.1mol/L EDTA. The endpoint is the maximum inflexion on the titration curve. The iron (II) ion concentration is calculated from the titration volume of the EDTA.

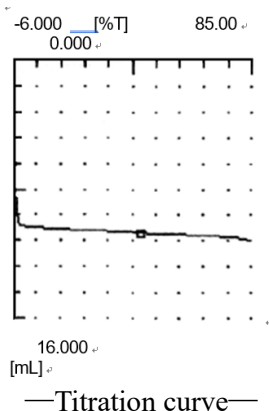
2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier PTA)
Electrode	Photometric sensor, Interference filter (530nm)

3. Reagents

Titrant	0.1mol/L ethylenediaminetetraacetic dihydrogen disodium (EDTA) solution
Solvent	Distilled water, 2% sulfosalicylic acid

4. Example



—Measurement results—			
	Sample (g)	Titer (mL)	Concentration (%)
1	0.5042	10.7310	11.95
2	0.5033	10.7080	11.94
3	0.5037	10.7215	11.95
Average			11.95
SD			0.00
RSD(%)			0.02

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