

Application Memo

Determination of Ammonium Iron Sulfate(ii) Concentration

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

1. Overview

The concentration of 0.1mol/L ammonium iron sulfate (ii) solution is examined. After adding concentrated sulfuric acid to the diluted sample and cooling, it is titrated with 0.02mol/L potassium permanganate solution. The endpoint is the maximum inflexion on the titration curve. The ammonium iron sulfate (ii) concentration is calculated from the titration volume of the potassium permanganate solution.

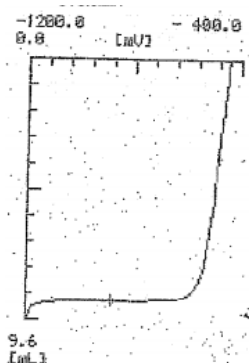
2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	Platinum electrode Ceramic reference electrode

3. Reagents

Titrant	0.02mol/L potassium permanganate solution
Additive	Concentrated sulfuric acid

4. Example



-Titration curve-

—Measurement results—

	Sample (mL)	Titer (mL)	Concentration (mol/L)
1		8.9112	0.0896
2	10	8.9261	0.0898
3		8.9249	0.0897
Average			0.0897
SD			0.0001
RSD(%)			0.1

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