

Application Memo

Iron in Acidic Cleaning Agent

Industry	Iron and steel
Instrument	Automatic potentiometric titrator
Measurement method	Redox titration

1. Overview

After adding Zimmermann-Reinhard reagent as chloride ion masking agent to the diluted sample, it is titrated with 0.2mol/L potassium permanganate solution. The endpoint is the maximum inflexion on the titration curve. The iron concentration is calculated from the titration volume of the potassium permanganate solution.

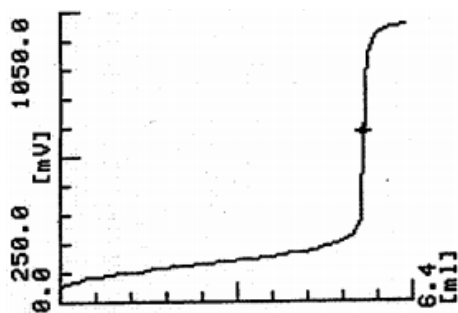
2. Apparatus

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

3. Reagents

Titrant	0.2mol/L potassium permanganate solution
Additive	Manganese sulfate solution (Zimmermann-Reinhard reagent)

4. Example



-Titration curve-

-Measurement results-			
	Sample (mL)	Titer (mL)	Concentration (g/L)
1	2.0	5.5748	155.5
2	2.0	5.5330	154.4
3	2.0	5.4372	151.7
Average			153.9
SD			2.0
RSD(%)			1.3

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 <Contact> Kyoto Electronics Manufacturing Co., Ltd.
 Overseas Sales & Marketing Sect.
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