KYOTO ELECTRONICS MANUFACTURING CO.,LTD.

TIQ-00086enL

Application Memo

Copper Ion (Cu^{2+}) in Sulfuric Acid (20g/L)

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

1. Overview

Here we demonstrate quantification of copper in sulfuric acid by potentiometric redox titration. First, add pure water and 10% potassium iodide to the sample liquid, and titrate with the 0.1mol/L sodium thiosulfate. The endpoint is the max inflexion on the titration curve. The concentration of copper is calculated from the titration volume of sodium thiosulfate.

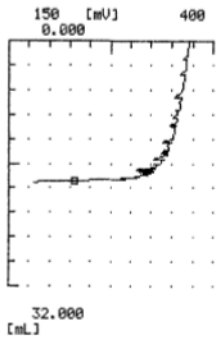
2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	Combined platinum electrode

3. Reagents

Titrant	0.1mo1/L sodium thiosulfate
Solvent	Pure water
Additive	10% potassium iodide

4. Example



—Titration curve—

—Measurement results—

	Sample (mL)	Titer (mL)	Copper (g/L)
1	10.0	18.2338	11.60
2	10.0	18.1745	11.56
3	10.0	18.2149	11.59
4	10.0	18.2019	11.58
5	10.0	18.2296	11.60
Average			11.59
SD			0.02
RSD(%)			0.1

Please feel free to contact us for any further information.

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