

Application Memo Copper Sulfate in Plating Solution

Industry	Nonferrous metal
Instrument	Automatic potentiometric titrator
Measurement method	Redox titration
Standards	HB/Z 5087.2

1. Overview

Copper sulfate in copper sulfate plating solution is measured by titration with 0.025mol/L sodium thiosulfate after the sample is added with pure water, ammonia water and 30% acetic acid and 20% potassium iodide.

The endpoint is the maximum inflection on the titration curve. The copper sulfate concentration is calculated from the titration volume of sodium thiosulfate.

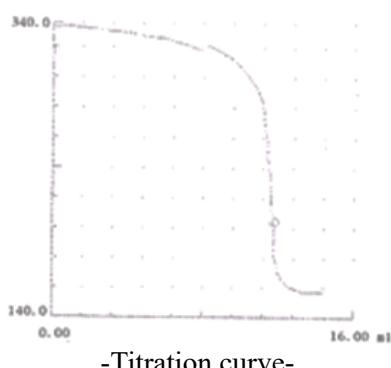
2. Apparatus

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

3. Reagents

Titrant	0.025mol/L sodium thiosulfate ($f=1.004$)
Solvent	Pure water
Additive	Ammonia water, 30% acetic acid, 20% potassium iodide

4. Example



-Measurement results-

	Sample (mL)	Titration (mL)	Copper sulfate (g/L)
1	5.0	11.7575	9.420

Please feel free to contact us for any further information.

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