KYOTO ELECTRONICS MANUFACTURING CO.,LTD.

TIO-93010enL

Application Memo

Copper Ions in Plating Solution

Industry	Non-ferrous metal
Instrument	Automatic potentiometric titrator
Measurement method	Chelatometric titration
Standards	

1. Overview

After adding ammonium chloride and ammonia water to the diluted sample in order to adjust pH, add PAN indicator and copper ion concentration is measured by titration with 0.05 mol/LEDTA solution. The endpoint is the maximum inflexion on the titration curve. The copper ion concentration is calculated from the titration volume of the EDTA solution.

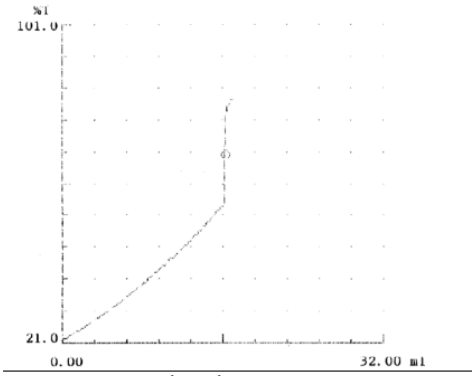
2. Apparatus

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

3. Reagents

Titrant	0.05 mol/L ethylenediaminetetraacetic acid (EDTA)
Solvent	Pure water
Additive	Ammonium chloride, Ammonia water
Indicator	PAN indicator

4. Example



-Titration curve-

-Measurement results-

	Sample (mL)	Titer (mL)	Concentration (g / L)
1	1	16.2904	51.72
2	1	16.2874	51.71
3	1	16.5907	52.68
4	1	16.2874	51.07
Average			51.95
SD			0.48
RSD(%)			0.93

Please feel free to contact us for any further information.

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