

Application Memo

Copper in Etchant

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

1. Overview

Copper in etchant is measured by titration with 0.05mol/L EDTA after adding pure water, ethanol, ammonia water and PAN indicator to the sample. The endpoint is determined by inflexion on the titration curve where the color of indicator changes. The copper concentration is calculated from the titration volume of EDTA.

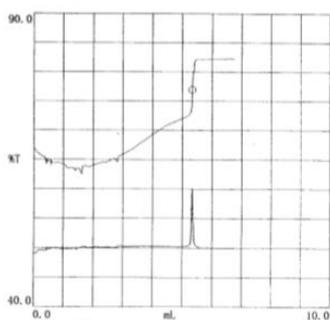
2. Apparatus

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

3. Reagents

Titrant	0.05mol/L EDTA
Solvent	Pure water
Additive	Ammonia water, Ethanol
Indicator	PAN indicator (0.1% Ethanol)

4. Example



—Titration curve—

—Measurement results—

	Sample (mL)	Titer (mL)	Copper (g/L)
1	1.0	5.3133	16.88
2	1.0	5.3552	17.02
3	1.0	5.3305	16.94
Average			16.95
SD			0.07
RSD(%)			0.39

Please feel free to contact us for any further information.
 <Contact> Kyoto Electronics Manufacturing Co., Ltd.
 Overseas Sales & Marketing Sect.
<http://www.kyoto-kem.com/en/contact/form.php>