KYOTO ELECTRONICS MANUFACTURING CO.,LTD.

TIO-93018enL

Application Memo

Lead in Plating Liquid for Soldering

Industry	Nonferrous metal
Instrument	Automatic potentiometric titrator
Measurement method	Chelatometric titration
Standards	

1. Overview

Lead in plating liquid for soldering is measured as follows: Add 10% sulfuric acid to the sample and filter to separate contained tin. Add 10% Rochelle salt solution and pH10 buffer to dissolve. Add water up to 100.0mL in total. Aliquot 10.0mL and add pH10 buffer and 0.01mol/L EDTA. Titrate with 0.01mol/L magnesium chloride.
The endpoint is the inflexion on the titration curve where color of the indicator changes.
The concentration of lead is calculated from the titration volume of magnesium chloride.

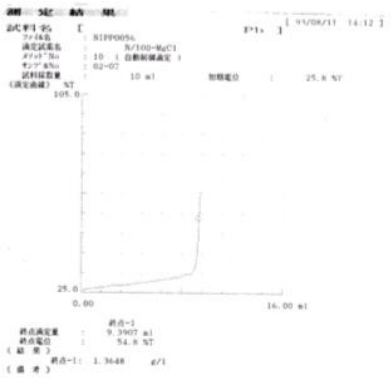
2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier PTA)
Electrode	Photometric sensor Interference filer (630nm)

3. Reagents

Titrant	0.01mol/L magnesium chloride (f = 0.999)
Solvent	Pure water 10% sulfuric acid, 10% Rochelle salt solution, 0.01mol/L EDTA Ammonium chloride ammonia water (pH10 buffer) Eriochrome black T (EBT)

4. Example



—Titration curve—

—Measurement results—

	Sample (mL)	Titer (mL)	Lead (g/L)
1	10.0	9.3907	1.3648

Please feel free to contact us for any further information.

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