

## Application Memo

# Tin in Solder Plating Fluid

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

## 1. Overview

Quantification of tin in solder plating fluid is started first by preparing pure water and 6mol/L HCl in a beaker. Then, add potassium sodium tartrate tetrahydrate to dissolve, and add sodium hydrogen carbonate, where just after the test sample is added, titration goes with the 0.05mol/L iodine solution up to the endpoint, which is the maximum inflexion on the titration curve. The tin concentration is calculated from the titration volume of the iodine solution.

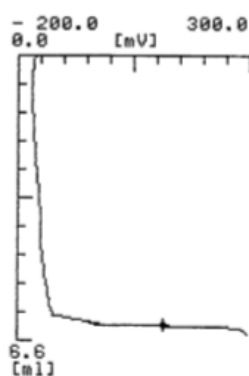
## 2. Apparatus

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

## 3. Reagents

Titrant	0.05mol/L (0.1N) Iodine
Additive	6mol/L hydrochloric acid, Potassium sodium tartrate tetrahydrate, Sodium hydrogen carbonate
Solvent	Pure water

## 4. Example



—Titration curve—

—Measurement results—

	Sample (mL)	Titer (mL)	Tin (g/L)
1	1.0	6.2891	37.55
2	1.0	6.2428	37.27
3	1.0	6.2788	37.49
4	1.0	6.1783	36.89
5	1.0	6.2363	37.24
Average			37.29
SD			0.26
RSD(%)			0.70

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