KYOTO ELECTRONICS MANUFACTURING CO., LTD.

TIQ-97057enL

Application Memo Chlorine Ion in Metal Cleanser

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

1. Overview

Chlorine ion concentration in metal cleanser is measured by potentiometric titration. First, the sample is added with water and nitric acid solution, and then titrated with 0.1mol/L silver nitrate solution up to the endpoint. The endpoint is the maximum inflexion on the titration curve. The concentration of chlorine ion is calculated from the titration volume of silver nitrate.

2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	Silver electrode Mercury sulfate reference electrode

3. Reagents

Titrant	0.1mol/L silver nitrate solution
Additive	Nitric acid solution

4. Example

- 350.0 - 100.0 0.0 [mV]	—Measurement results—				
		Sample	Titer	Chlorine ion	
+ \		(g)	(mL)	(ppm)	
- \	1	5.1315	1.2638	874.30	
	2	5.1138	1.2610	875.39	
$+$ \setminus	3	5.1206	1.2589	872.77	
+ $($	Average			872.15	
	SD			1.32	
	RSD(%)			0.151	
1.4 [ml]					

-Titration curve-

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