KYOTO ELECTRONICS MANUFACTURING CO.,LTD.

TIQ-98011enL

Application Memo

Quantitative Determination of Sodium Hydroxide, Tar Acid (Phenol) and Sodium Carbonate in Recovered Sodium

Industry	Inorganic chemical industry
Instrument	Potentiometric automatic titrator
Measurement method	Neutralization titration

1. Overview

After adding 1% barium chloride, the sample is titrated with 0.5mol/L hydrochloric acid. The endpoints are the maximum inflexions on the titration curve. The concentration of sodium hydroxide, tar acid (phenol) and sodium carbonate are calculated using the three data of the titration volumes at the endpoints.

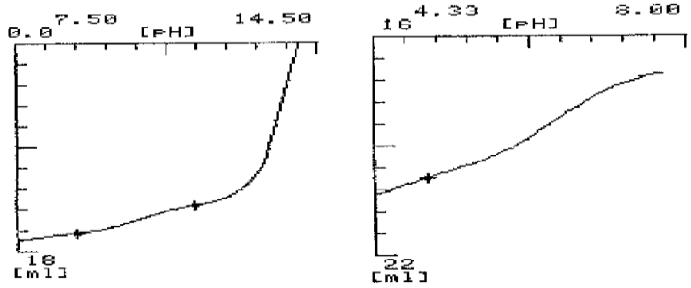
2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	pH glass electrode Ceramic reference electrode Temperature compensation electrode

3. Reagents

Titrant	0.5mol/L hydrochloric acid
Additive	1% barium chloride

4. Example



—Titration curve—

—Measurement results—

	Sample size(g)	Sodium hydroxide		Tar acid		Sodium carbonate	
		Titer(mL)	Results(%)	Titer(mL)	Results(%)	Titer(mL)	Results(%)
1	3.0592	14.0980	9.2813	16.4640	4.0109	19.8976	2.9951
2	3.0504	13.9873	9.2350	16.5115	4.2914	19.7817	2.8613
3	3.0397	13.7353	9.1005	16.2782	4.3385	19.7192	3.0210
4	3.0794	13.7349	8.9829	16.4704	4.6069	20.0278	3.0831
5	3.0306	13.5532	9.0068	16.1749	4.4863	19.5714	2.9906
Average			9.1213		4.3468		2.9902
SD			0.1334		0.2253		0.0810
RSD(%)			1.463		5.184		2.71

Please feel free to contact us for any further information.

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