

Application Memo

Determination of Sodium Hydroxide, Phenolate and Sodium Carbonate in Liquor for Recovery Boiler

Industry	Environmental
Instrument	Automatic potentiometric titrator
Measurement method	Redox titration

1. Overview

After adding 1% barium chloride, the diluted sample is measured by titration with 0.1mol/L hydrochloric acid solution. The endpoints are the maximum inflexions on the titration curve. The sodium hydroxide, phenolate and sodium carbonate concentrations are calculated from hydrochloric acid titration volumes' data at three endpoints.

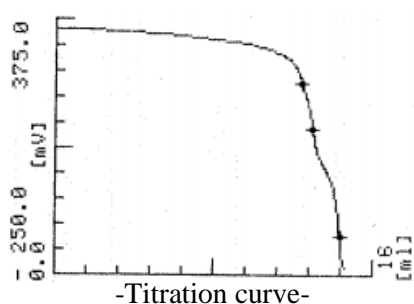
2. Apparatus

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

3. Reagents

Titrant	0.1mol/L hydrochloric acid
Additive	1% barium chloride
Solvent	Pure water

4. Example



-Measurement results-			
	Sodium hydroxide (%)	Phenolate (%)	Sodium carbonate (%)
1	8.30	0.95	1.15
2	8.36	0.86	1.08
3	8.35	0.92	1.06
Average	8.33	0.91	1.10
SD	0.03	0.05	0.05
RSD(%)	0.3	5	4

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