

Application Memo

Calcium Oxide in Alkaline Solution

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

1. Overview

Calcium oxide in alkaline solution is measured first by preparing a homogeneously stirred test sample and adding potassium hydroxide and triethanolamine. Then, add EDTA precisely and titrate with 0.025mol/L calcium chloride. The endpoint is obtained by the color change of the indicator on the titration curve.

The calcium oxide is calculated from the titration volume of calcium chloride.

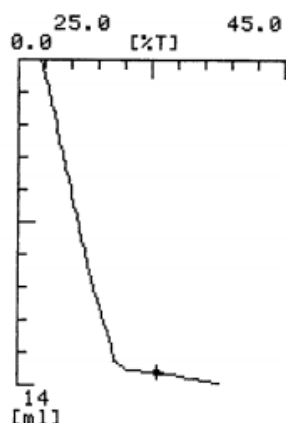
2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier PTA)
Electrode	Photometric sensor Interference filter (530nm)

3. Reagents

Titrant	0.0 25 mol/L calcium chloride
Solvent	Pure water
Indicator	Carcein indicator
Additive	5 mol/L potassium hydroxide 0.05mol/L EDTA , 200g/L triethanolamine

4. Example



-Titration curve-

-Measurement results-			
	Sample (g)	Titer (mL)	Conc. (%)
1	10.0032	13.5365	0.10741
2	10.0123	13.5566	0.10703
3	10.0080	13.5518	0.10714
4	10.0455	13.4698	0.10789
5	10.0080	13.5328	0.10741
Average			0.10738
SD			0.00033
RSD(%)			0.31

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