

## Application Memo

### Quantitative Determination of Aluminium Oxide in Cement

Industry	Ores
Instrument	Automatic potentiometric titrator
Measurement method	Chelatometric titration
Standards	JIS R 5202

#### 1. Overview

After adjusting the sample using water, EDTA, sodium acetate and ammonium acetate according to JIS R 5202, add the Xylenol orange indicator to the sample. Aluminium oxide concentration is measured by titration with the 0.01mol/L zinc solution. The endpoint is the maximum inflexion on the titration curve.

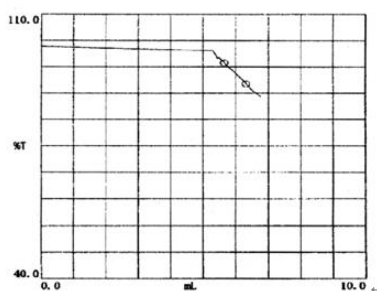
#### 2. Apparatus

Main unit	Potentiometric automatic titrator (preamplifier PTA)
Electrode	Photometric sensor Interference filter (530nm)

#### 3. Reagents

Titrant	0.01mol/L zinc solution
Solvent	Pure water
Additive	0.01mol/L EDTA, Sodium acetate, Ammonium acetate, Xylenol orange indicator

#### 4. Example



—Titration curve—

—Measurement results—

	Sample size (mL)	Titer (mL)	Concentration (%)
1	0.9997	6.3132	5.431
2	0.9997	6.3022	5.436
3	0.9997	6.3341	5.420
4	0.9997	6.3397	5.417
5	0.9997	6.3276	5.423
Average			5.426
SD			0.008
RSD(%)			0.1

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