

Application Memo

Quantification of Magnesium Sulfate

Industry	Inorganic chemical industry
Instrument	Automatic potentiometric titrator
Measurement method	Chelatometric titration
Standards	JIS K 8995

1. Overview

Referring to JIS K 8995-2015 Magnesium sulfate heptahydrate (Reagent), magnesium sulfate is measured by titration with 0.01mol/L EDTA after adding the buffer to the sample. The endpoint is the inflexion on the titration curve where the color of the indicator changes. The magnesium sulfate concentration is calculated from the titration volume of EDTA.

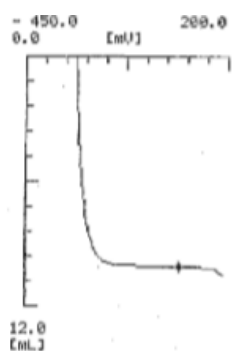
2. Apparatus

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

3. Reagents

Titrant	0.01mol/L EDTA
Solvent	Pure water
Additive	Buffer (pH10)
Indicator	Eriochrome black (EBT indicator)

4. Example



—Measurement results—

	Sample (mL)	Titer (mL)	Concentration (mol/L)
1	10.0	10.0710	0.01007
2	10.0	10.0739	0.01007
3	10.0	10.0788	0.01008
4	10.0	10.0925	0.01009
5	10.0	10.0906	0.01009
Average			0.01009
SD			0.00001
RSD(%)			0.06

Please feel free to contact us for any further information.
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