

Application Memo

Total Manganese in Manganese Dioxide

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

1. Overview

After adding water, hydrochloric acid and sodium pyrophosphate to the adjusted sample, total manganese concentration is measured by titration with 0.01mol/L potassium permanganate. The endpoint is the maximum inflexion on the titration curve. The total manganese concentration is calculated from the titration volume of potassium permanganate.

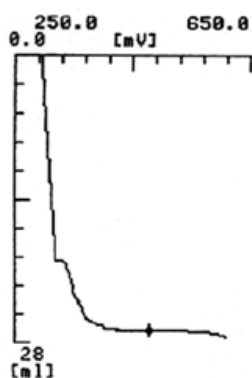
2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	Platinum electrode Ceramic reference electrode

3. Reagents

Titrant	0.01mol/L(N/20) potassium permanganate
Solvent	Water
Additive	5mol/L hydrochloric acid, Sodium pyrophosphate (Sodium diphosphate) 10 hydrate

4. Example



—Titration curve—

—Measurement results—			
	Sample size (g)	Titer (mL)	Concentration (%)
1	0.098418	27.0000	60.393
2	0.098418	27.0171	60.431
3	0.098418	27.0210	60.440
Average			60.421
SD			0.025
RSD(%)			0.041

Please feel free to contact us for any further information.
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