

## Application Memo

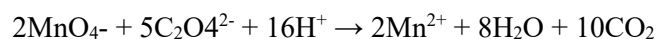
# Factor of Potassium Permanganate

Industry	Inorganic chemical industry
Instrument	Automatic potentiometric titrator
Measurement method	Redox titration
Standards	JIS K 8001

## 1. Overview

Mol concentration of reference substance used in volumetric analysis is expressed precisely by a number of numeric with and without fraction, of which coefficient is called the factor.

According to JIS K 8001-2017, the factor of 0.02mol/L potassium permanganate is determined by titration of sodium oxalate with 0.02mol/L potassium permanganate and calculated from the titration volume. The endpoint is the maximum inflexion on the titration curve.



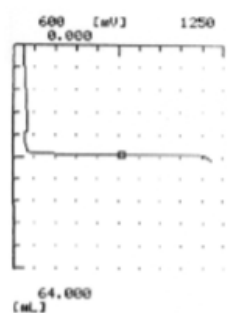
## 2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	Combined platinum electrode

## 3. Reagents

Titrant	0.02mol/L(0.1N) potassium permanganate
Reference	Sodium oxalate
Additive	Sulfuric acid (1+1)

## 4. Example



—Titration curve—

—Measurement results—			
	Sample (g)	Titer (mL)	Factor
1	0.2075	31.3595	0.9826
2	0.2050	30.9631	0.9832
3	0.2056	31.1066	0.9816
Average			0.9825
SD			0.0008
RSD(%)			0.08

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