



Application Memo Factor of Iodine Solution

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 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 iodine is determined by titration with 0.1 mol/L sodium thiosulfate. The concentration of the iodine solution is calculated from the titration volume. The endpoint is the maximum inflexion on the titration curve.

$$I_2 + 2Na_2S_2O_3 \rightarrow 2NaI + Na_2S_4O_6$$

2. Apparatus

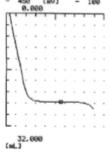
Main unit Automatic potentiometric titrator (preamplifier STD)

Electrode Combined platinum electrode

3. Reagents

Titrant 0.1mol/L sodium thiosulfate solution

4. Example



—Measurement results—		
Sample	Titer	Factor
(mL)	(mL)	
25.0	25.2285	1.009
25.0	25.0634	1.003
25.0	25.0509	1.002
		1.004
		0.004
		0.4
	Sample (mL) 25.0 25.0	Sample (mL) Titer (mL) 25.0 25.2285 25.0 25.0634

—Titration curve—

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