

## Application Memo

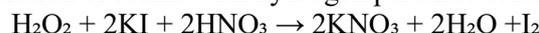
# Quantification of Hydrogen Peroxide

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

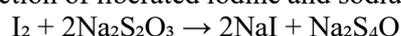
## 1. Overview

Hydrogen peroxide is measured by titration with 0.01mol/L sodium thiosulfate after the sample is added with pure water, nitric acid and potassium iodide left in a dark room. The endpoint is the maximum inflexion on the titration curve. The concentration of hydrogen peroxide is calculated from the titration volume of sodium thiosulfate. The prepared liquid can be titrated up to 10ppm. JIS K 8230 specifies the test method using potassium permanganate.

Liberation of iodine with hydrogen peroxide solution



Reaction of liberated iodine and sodium thiosulfate



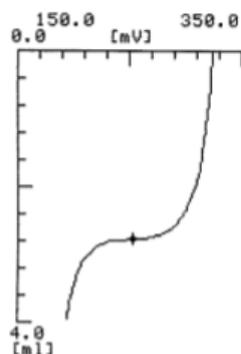
## 2. Apparatus

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

## 3. Reagents

Titrant	0.01mol/L sodium thiosulfate
Solvent	Pure water, Nitric acid, 10% potassium iodide

## 4. Example



—Measurement results—

	Sample (g)	Titer (mL)	Hydrogen peroxide (ppm)
1	5.0076	2.7875	84.309
2	5.0056	2.9604	90.219
3	5.0058	2.8817	87.541
Average			87.356
SD			2.959
RSD(%)			3.388

—Titration curve—

Please feel free to contact us for any further information.

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