

## Application Memo

# Peroxide Number of Kerosene

Industry	Petrochemicals
Instrument	Automatic potentiometric titrator
Measurement method	Redox titration
Standards	

## 1. Overview

Prepare by adding the solvent, adding the saturated potassium iodide solution with bubbling nitrogen gas and diluting the sample in Erlenmeyer flask in this order. Stir the sample throughout the preparation. The prepared sample is titrated with 0.01mol/L sodium thiosulfate solution. The endpoint is the maximum inflexion on the titration curve. The peroxide number is calculated from the titration volume of the sodium thiosulfate solution.

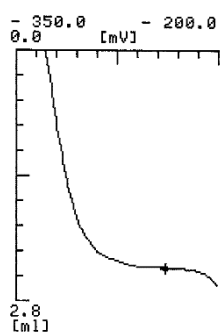
## 2. Apparatus

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

## 3. Reagents

Titrant	0.01mol/L sodium thiosulfate solution
Solvent	Acetic acid and 2,2,4 trimethylpentane
Additive	Saturated potassium iodide solution, Nitrogen gas

## 4. Example



—Titration curve—

—Measurement results—

	Sample (g)	Titer (mL)	Conc. (meq/kg)
1	4.9990	2.4489	4.8988
2	5.0073	2.3897	4.7724
3	4.9982	2.3766	4.7549
Average			4.8087
SD			0.0785
RSD(%)			1.63

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