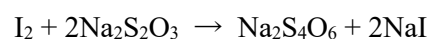
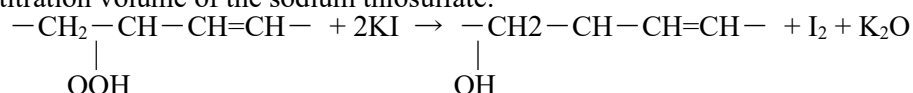


Application Memo POV of Safflower Oil

Industry	Fat and oil
Instrument	Automatic potentiometric titrator
Measurement method	Redox titration
Standards	The JOCS Standard methods for the Analysis of Fats, Oils and Related Materials

1. Overview

The degree of oxidization of fat and oil or food containing them is evaluated by the peroxide value (POV). POV is expressed in meq/kg (equivalent mg/kg) and is the amount of hydroperoxide formed by oxidization of fats and oils by ambient oxygen. After solving the sample in the solvent, saturated potassium iodide is added to this solution while bubbling nitrogen gas through it to react with the peroxide in the sample. The obtained free iodine is titrated with 0.01mol/L sodium thiosulfate up to the endpoint. The peroxide value is calculated from the titration volume of the sodium thiosulfate.



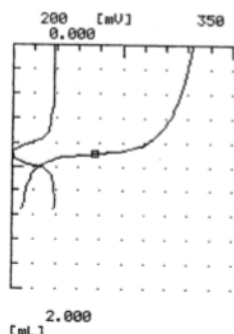
2. Apparatus

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

3. Reagents

Titrant	0.01mol/L sodium thiosulfate
Solvent	Mixture solution of acetic acid and isooctane (3+2)(vol%)
Additive	Saturated potassium iodide
Inactive gas	Nitrogen gas

4. Example



—Titration curve—

—Measurement results—

	Sample (g)	Titer (mL)	POV (meq/kg)
1	5.0110	0.8963	1.793
2	5.0143	0.9067	1.812
3	5.0213	0.8998	1.796
Average			1.800
SD			0.011
RSD(%)			0.59

Please feel free to contact us for any further information.

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