

Application Memo

Hydrogen Peroxide in Hair Dye

Industry	Cosmetics soap
Instrument	Automatic potentiometric titrator
Measurement method	Redox titration
Standards	

1. Overview

Hydrogen peroxide in hair dye is measured by titration up to the endpoint with 0.02mol/L potassium permanganate after the sample is added with pure water and 6mol/L sulfuric acid, dissolving by heating. The endpoint is the maximum inflexion on the titration curve. Concentration of hydrogen peroxide is calculated from the titration volume of potassium permanganate.

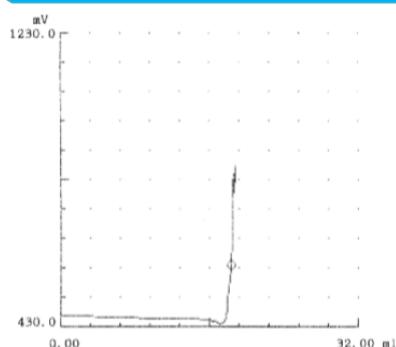
2. Apparatus

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

3. Reagents

Titrant	0.02mol/L(0.1N) potassium permanganate
Solvent	Pure water
Additive	6mol/L sulfuric acid

4. Example



—Titration curve—

—Measurement results—

	Sample (g)	Titer (mL)	Concentration (%)
1	0.5184	18.4500	6.090
2	0.5074	18.0000	6.070
3	0.5126	18.2610	6.095
Average			6.0850
SD			0.0134
RSD(%)			0.220

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