

Application Memo Anionic Surfactant

Industry	Cosmetics soap
Instrument	Automatic potentiometric titrator
Measurement method	Ion association titration
Standards	

1. Overview

Here we demonstrate determination by using the **particle changer detector unit (PCD-500)** and **the automatic potentiometric titrator**. This method does not use toxic chloroform, and the endpoint is found automatically without using an indicator. This method makes use of quantitative ionic reaction and determines the endpoint by stoichiometry. The ion concentration can be obtained with good precision based on the same principle as the Epton Method. **The water diluted sample is titrated with 0.04mol/L benzethonium chloride using PCD-500.** The sudden change of streaming potential is the endpoint. The concentration of the surfactant is calculated from the titration volume.

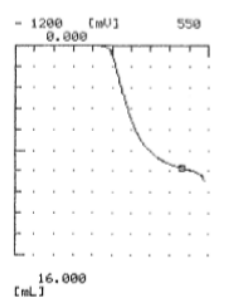
2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD) Particle changer detector unit (PCD-500)
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3. Reagents

Titrant	0.004mol/L benzethonium chloride
Solvent	Distilled water

4. Example



—Titration curve—

—Measurement results—

	Sample (g)	Titer (mL)	Concentration (%)
1	1.9462	9.3238	74.353
2	1.9462	9.4620	75.455
3	1.9462	9.5489	76.148
Average			75.319
SD			0.905
RSD(%)			1.20

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