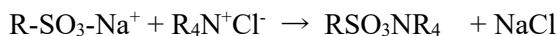


## Application Memo Cationic Surfactant in Rinse Agent

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

### 1. Overview

Cationic surfactant concentration can be calculated from the potentiometric titration volume using an electrode for surface-active agent. Titrate with 0.005mol/L dodecyl sodium sulfate (SDS) up to the endpoint. The endpoint is the maximum inflection point on the titration curve.



Where : R . . . . . CH<sub>3</sub>(CH<sub>2</sub>)<sub>n</sub>O ( n=9~13 )  
 R<sub>4</sub> . . . . . Carbon chain of surfactant

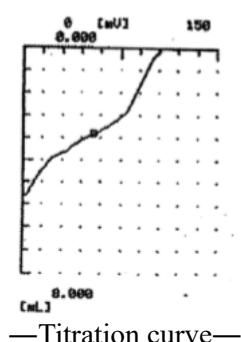
### 2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	Combined surfactant electrode

### 3. Reagents

Titrant	0.005mol/L SDS
Solvent	1% TritonX-100, 0.01mol/L hydrochloric acid

### 4. Example



—Measurement results—			
	Sample (g)	Titer (mL)	Concentration (%)
1	5.3884	3.0665	0.7887
2	5.3884	3.0712	0.7899
3	5.3884	3.1444	0.8087
Average			0.7958
SD			0.0112
RSD(%)			1.41

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