

Application Memo

Sodium Sulfate in Cosmetics

Industry	Cosmetics & soap
Instrument	Automatic potentiometric titrator
Measurement method	Redox titration
Standards	ISO 6844, GB/T 6366

1. Overview

Lead sulfate precipitates when sodium sulfate contained in cosmetics is titrated with lead ion solution. With potassium ferricyan-ferrocyanide indicator is added, as sulfate ion decreases, Fe (II) ion changes to Fe (III) ion also changing electrode potential. At the endpoint of sulfate ion precipitation, only Fe (III) ion remains with a sharp potential inflection, which is detected by the platinum electrode, and thus concentration of sodium sulfate is obtained from the titration volume. Depending on composition, some cosmetics may not show a sharp inflection, however, endpoint can be determined by setting an appropriate condition for detecting the rate of change.

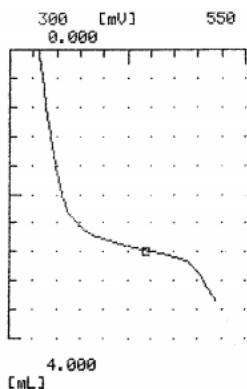
2. Apparatus

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

3. Reagents

- Titrant 0.05mol/L lead nitrate
 Solvent Pure water, 2-propanol
 Indicator Potassium ferricyan-ferrocyanide test solution
 0.03mol/L hydrochloric acid

4. Example



-Titration curve-

-Measurement results-

	Sample (g)	Titer (mL)	Conc. (%)
1	5.0030	2.7913	0.3993
2	5.0053	2.7930	0.3994

Please feel free to contact us for any further information.

<Contact> Kyoto Electronics Manufacturing Co., Ltd.

Overseas Sales & Marketing Sect.

京都电子工业株式会社 - 可睦电子(上海)商贸有限公司
 电话: 021-54488867 电邮: kemu-kem@163.com

上海市徐汇区宜山路333号1201室
 网址: <http://www.kem-china.com>