

Application Memo

Chlorine Ion (Cl⁻) in Medicine

Industry	Pharmaceutical
Instrument	Automatic potentiometric titrator
Measurement method	Precipitation titration
Standards	

1. Overview

The chlorine ion concentration in medicine is measured by titration of the test sample, which is first added with 1mol/L nitric acid, ethanol, 0.2mol/L sodium hydroxide and water, and then titrated with 0.05mol/L silver nitrate to the endpoint. The endpoint is the maximum inflexion on the titration curve. The concentration of chlorine ion is calculated from the titration volume of silver nitrate.

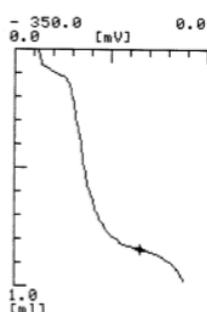
2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	Silver electrode Mercury sulfate reference electrode

3. Reagents

Titrant	0.05mol/L silver nitrate
Solvent	Pure water
Additive	1mol/L nitric acid solution, 0.2mol/L sodium hydroxide, Ethanol

4. Example



—Titration curve—

—Measurement results—

	Sample (g)	Titer (mL)	Chlorine ion (%)
1	0.0153	0.8513	9.86
2	0.0153	0.8331	9.65
3	0.0154	0.8694	10.01
Average			9.84
SD			0.18
RSD(%)			1.8

Please feel free to contact us for any further information.
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