

## Application Memo

# Chromium Oxide (Chromic Anhydride)

Industry	Inorganic chemical industry
Instrument	Automatic potentiometric titrator
Measurement method	Redox titration
Standards	

## 1. Overview

The concentration of chromium oxide (chromic anhydride) is measured as follows. Add hydrochloric acid and potassium iodide to the aliquot of chromium oxide first dissolved in pure water. Seal the mixture and leave it in a dark room. Then, titrate with 0.1mol/L sodium thiosulfate up to the endpoint.

The endpoint is the maximum inflexion on the titration curve. The concentration of chromium oxide is calculated from the titration volume of the sodium thiosulfate solution.

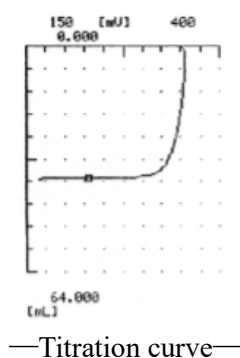
## 2. Apparatus

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

## 3. Reagents

Titrant	0.1mol/L sodium thiosulfate
Solvent	Pure water
Additive	Hydrochloric acid, Potassium iodide

## 4. Example



-Measurement results-

	Sample (g)	Titer (mL)	Chromium oxide (%)
1	2.526	37.4784	99.40
2	2.526	37.6277	99.79
3	2.526	37.6497	99.85
Average			99.68
SD			0.24
RSD(%)			0.25

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