

## Application Memo

# Sodium Dichromate in Plating Solution

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

## 1. Overview

Sodium dichromate (sodium dichromate dihydrate,  $\text{Na}_2\text{Cr}_2\text{O}_7$ ) in plating solution is measured by titration with 0.2mol/L ferrous ammonium sulfate after adding sulfuric acid (1+1) and diphenylamine to the sample. The endpoint is the maximum inflexion on the titration curve. The sodium dichromate concentration is calculated from the titration volume of ferrous ammonium sulfate.

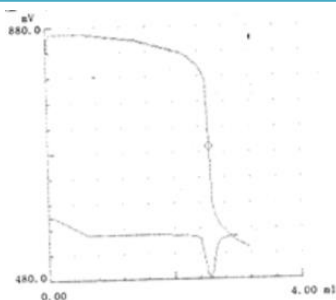
## 2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	Platinum electrode Ceramic reference electrode

## 3. Reagents

Titrant	0.2mol/L (0.2N) ferrous ammonium sulfate
Solvent	Pure water
Additive	Sulfuric acid (1+1), 1% diphenylamine

## 4. Example



—Titration curve—

—Measurement results—

	Sample (mL)	Titer (mL)	Sodium dichromate (g/L)
1	1.0	2.5666	25.70

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