

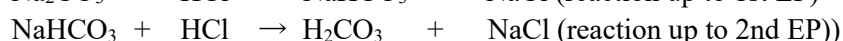
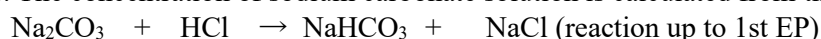
## Application Memo

# Concentration of Sodium Carbonate

Industry	Inorganic chemical industry
Instrument	Automatic potentiometric titrator
Measurement method	Acid-base titration
Standards	ISO 6353-2

## 1. Overview

According to ISO 6353-2: 1983 Reagents for chemical analysis-Part2: Specifications -- First series, sodium carbonate dissolved in pure water (0.5mol/L Na<sub>2</sub>CO<sub>3</sub>) is titrated with 1mol/L hydrochloric acid up to the second endpoint, which is the second inflexion on the titration curve. The concentration of sodium carbonate solution is calculated from the titration volume.



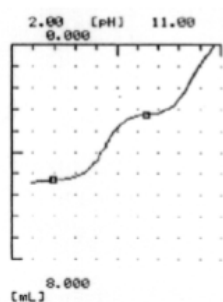
## 2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	Combined glass electrode Temperature compensation electrode

## 3. Reagents

Titrant	1mol/L hydrochloric acid solution
Solvent	Pure water

## 4. Example



—Titration curve—

—Measurement results—

	Sample (mL)	Titer EP2 (mL)	Na <sub>2</sub> CO <sub>3</sub> (mol/L)
1	5.0	5.0466	0.5031
2	5.0	5.0164	0.5001
3	5.0	5.0487	0.5034
Average			0.5022
SD			0.0018
RSD(%)			0.36

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