

Application Memo

Moisture of Sodium Hydrogen Carbonate

Industry	:	Inorganic Chemical
Instrument	:	Karl Fischer Moisture Titrator
Measurement method	:	Volumetric titration / Evaporation method
Standards	:	JIS K 0113, ASTM E 203, ISO 760

1. Overview

Moisture titration using Karl Fischer reagent is popularly practiced water determination worldwide as the most reliable method. The procedure is adopted in many official standards as test method specified in ISO, ASTM, DIN, BS and JIS.

The test conducted this time is an example of volumetric moisture titration of Sodium Bicarbonate according to below quoted JIS K 0113-2005, where the sample is heated in the oven and the evaporated moisture is transferred to titration medium by carrier gas.

We use KEMAQUA MET as the extracting medium for indirect titration using an evaporator.

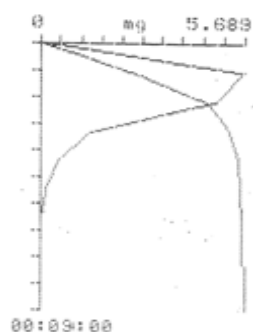
2. Apparatus

Main unit	:	Karl Fischer moisture titration volumetric system
Electrode	:	Twin platinum electrode for KF titration
Option	:	KF oven

3. Reagents

Reagent	:	KEMAQUA TR-3
Solvent	:	KEMAQUA MET (for general purpose)

4. Example



—Titration curve—

—Measurement results—				
Sample name	Sample (g)	Solvent	Water content (mg)	Water content (%)
Sodium Bicarbonate	0.0516	MET	5.6886	11.024

Oven temperature: 250°C

Please feel free to contact us for any further information.
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