

Application Memo

Water Content in Crystalline Acids

Industry	Inorganic chemical industry
Instrument	Karl Fischer moisture titrator
Measurement method	Volumetric titration (Direct Method)
Standards	JIS K 0113, ASTM E 203, ISO 760

1. Overview

Moisture titration with Karl Fischer reagent is the most reliable moisture measurement method in the world. The procedure is adopted in many official standards as test method specified in ISO, ASTM, DIN, BS and JIS.

Here in this application, we measure water content in crystalline acids by direct method of KF titration according to JIS K 0113.

Carboxylic acids like cyclic or chain structured are crystalline acids. Most of them are soluble in the solvent and easy to measure water content.

2. Apparatus

Main unit	Karl Fischer moisture titration volumetric system
Electrode	Twin platinum electrode

3. Reagents

Titrant	KEMAQUA titrant TR-3
Solvent	KEMAQUA solvent MET for general

4. Example

—Measurement results—

Sample name	Sample (g)	Water content	
		(mg)	(%)
Salicylic acid	3.0010	0.18	0.006
Oxalic acid	0.1244	3.55	28.54

Please feel free to contact us for any further information.
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