

Application Memo

Water Content of Sulfur Compound

Industry	Petrochemicals
Instrument	Karl Fischer Moisture Titrator
Measurement method	Volumetric titration
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 as in ISO, ASTM and JIS, etc.

Here in this application note, we measure water content of sulfur compound according to JIS K 0113-2005 as quoted below. Most of sulfur compounds are measurable without difficulty except mercaptan (thiol).

For water measurement of typical sulfur compound, we use commercially sold extracting medium MET.

We have tested the following substances so far:
Carbon disulfide, Dimethyl sulfoxide, etc.

2. Apparatus

Main unit	Karl Fischer moisture titration volumetric system
Electrode	Twin Platinum Electrode

3. Reagents

Titrant	KEMAQUA TR-3
Solvent	KEMAQUA Solvent SA for Sugar

4. Example

—Measurement results—

Sample name	Water content	
	mg	%
Carbon disulfide	0.2501	0.002

Sample name	Water content	
	mg	%
Dimethyl sulfoxide	3.6302	0.033

Please feel free to contact us for any further information.
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<http://www.kyoto-kem.com/en/contact/form.php>