

## Application Memo

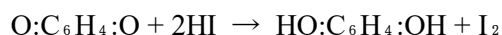
### Water Content of Quinone

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 in ISO, ASTM, DIN, BS and JIS.

Here in this application, water content of Quinone is determined by volumetric titration according to JIS K 0113-2005 as quoted below. Quinine oxidizes hydriodic acid bringing side reaction with free iodine.



We use commercially sold KET solvent in order to avoid the side reaction.

The samples we have tested by this method are as follows:

1,4-Benzoquinone,  $\alpha$ -Naphthoquinone, etc..

## 2. Apparatus

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

## 3. Reagents

Titrant	KEMAQUA TR-5
Solvent	KEMAQUA Solvent KET for Ketone

## 4. Example

—Measurement results—

Sample name	Sample size g	Extracting medium	Water content	
			mg	%
1,4-Benzoquinone	0.1054	KET	0.8811	0.84
$\alpha$ -Naphthoquinone	0.2224	KET	0.311	0.14

Please feel free to contact us for any further information.

<Contact> Kyoto Electronics Manufacturing Co., Ltd.

Overseas Sales & Marketing Sect.

<http://www.kyoto-kem.com/en/contact/form.php>