KYOTO ELECTRONICS MANUFACTURING CO.,LTD.

KVX-01231enL

Application Memo

Water Determination in Phenols (1)

Industry	Organic 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 phenols by direct method of KF titration according to JIS K 0113. Phenols can be dissolved in the solvent of a mixture of methanol and 2-propanol or 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	HYDRANAL™ Composite 2
Solvent	HAYASHI™ Solvent MI

4. Example

—Measurement results—

Sample	Water content	
	mg	%
Phenol	0.8257	0.017
m-cresol	1.6515	0.031
p-cresol	2.2192	0.041
2-nitro phenol	0.8258	0.082
Resorcinol	0.3140	0.006

Sample	Water content	
	mg	%
8-quinolinol	0.8774	0.032
1-naphthol	0.9506	0.019
Potassium guiacol sulfonate	2.8247	3.74
2,4-dichlorophenol	1.1143	0.041

Please feel free to contact us for any further information.

＜Contact＞Kyoto Electronics Manufacturing Co., Ltd.
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