

Application Memo

Accuracy Check of KF reagents (with Pure water)

Industry	:	Inorganic chemical
Instrument	:	Karl Fischer Moisture Titrator
Measurement method	:	Volumetric titration
Standards	:	JIS K 0113, JIS K 0068, JIS K 2275, ISO 760 Japan Pharmacopoeia, 13 th ASTM E203, ASTM D 1533, ASTM D 1744

1. Overview

Moisture determination by Karl Fischer (KF) method has been most popularly practiced in the world because it is recognized as the most reliable method for the measurement of water. The KF method is adopted by plenty of international institutions including not only ISO, ASTM, DIN, and BS but also JIS, JAS and Japan Pharmacopoeia.

This application note is an example where the accuracy of pure water is verified using the factor determined in the application note KVX-01011.

2. Apparatus

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

3. Reagents

Titrant	:	Composite 5 (made by RdH)
Solvent	:	Dehydrating solvent ML (made by Hayashi)

4. Example

—Measurement results—

Run	Size Wt1-Wt2 (g)	Vol. (mL)	Water content (%)	Statistics	
				Mean	
1	0.0290	6.210	100.49	Mean	100.00 %
2	0.0298	6.360	100.15	SD	0.5738 %
3	0.0302	6.395	99.368	RSD	0.5738 %

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