

Application Memo Moisture of Toluene

| | | |
|--------------------|---|--|
| Industry | : | Organic Chemical |
| Instrument | : | Karl Fischer Moisture Titrator |
| Measurement method | : | Coulometric Titration (Direct Method) |
| Standards | : | JIS K 0113, JIS K 0068, ASTM D 1533, 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.

The test conducted here is an example of coulometric titration for water content of toluene.

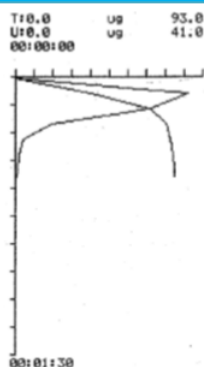
2. Apparatus

| | | |
|-----------|---|--|
| Main unit | : | Karl Fischer moisture titration coulometric system |
| Electrode | : | Electrolysis electrode Twin platinum electrode for KF titration |

3. Reagents

| | | |
|-----------|---|---------------------------------|
| Anolyte | : | KEMAQUA AGE (Kyoto Electronics) |
| Catholyte | : | KEMAQUA CGE (Kyoto Electronics) |

4. Example



—Titration curve—

| —Measurement results— | | | |
|-----------------------|------------|---------------|---------------------|
| | Sample (g) | Moisture (μg) | Concentration (ppm) |
| 1 | 1.7494 | 111.80 | 63.91 |
| 2 | 1.7435 | 117.10 | 67.16 |
| 3 | 1.7500 | 120.87 | 69.07 |
| Average | | | 66.71 |
| SD | | | 2.61 |
| RSD(%) | | | 3.91 |

Please feel free to contact us for any further information.
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