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JJG

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

JJG 2061-2015

Replacing JJG 2061-1990

**Verification Scheme of Measuring Instruments for Primary
Chemical Purity
(English Translation)**

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Introduction

The verification system in accordance with JJF1104-2003 "National Metrological
Verification System write rules" be written. versus JJG 2061-1990 compared to, in addition
to editorial changes outside the main technical changes are as follows.

--- Increased contents Introduction;

--- Increasing the national benchmark reference reagent purity constituent equipment technical performance indicators;

--- Modify the relative expanded uncertainty of the national baseline reference reagent purity, a national reference reagent purity standard Reference material and national levels Titration analysis standard material purity expanded uncertainty, as well as the standard titration analysis Relative expanded uncertainty of the solution.

The previous version of the verification system for the release of the case.

--- JJG 2061-1990.

Reference reagent purity measuring instruments Verification System

1 Scope

The verification system applicable to the reference value transfer reagent purity of measuring instruments, the provisions of the country by means of a base Quasi reagent purity standard substance, the national secondary standard materials and titration analysis device by standard metered baseline measurement Quasi money transfer reagent purity reagent approach to all types of titration analysis, and extension value transfer when uncertainty Given degrees. In carrying out the calibration can also be used as a basis for traceability.

2 baseline measurement

2.1 Application reference reagent purity national benchmark National benchmark reference reagent purity for purity reproduction reference reagents. By mass, time, current and other basic physical Reference measurements to determine the purity of the reagents. National benchmark reproducible reference reagent purity in the range of ~ 99.950% 100.050%.

2.2 reference reagent purity national benchmark composition Reference reagent purity national benchmarks by the high-precision timing constant current source, precision analytical balance, the standard temperature of the battery pack, standard Quasi-resistance, indicating the end of the electrolytic cell and system components.

Exact timing of the constant current source. current stability better than $5 \times 10^{-6}/30\text{min}$ DC constant current power supply, having 1.0186 x 100mA, 1.0186 x 10mA, 1.0186 x 1mA 1.0186 x 0.1mA four kinds of output and Flow, the current value is determined by the compensation method; the minimum timing resolution 0.1ms, current and timing synchronization is less than the difference 0.1ms.

Precision Analytical Balance. Range 5.1g, minimum resolution 0.1 μg .

Temperature standard battery pack. Range 1V, annual variation of less than 2 μV .

Standard resistance. 10ohm, 100ohm, 1kohm, 10kohm, the relative uncertainty of 1.5×10^{-6} ($k = 3$).

Precision heated fuel tank. level work area temperature difference 0.002 °C, temperature fluctuations better than 0.001 °C/30min.

End indicating system. two types of devices and end the current law indicating means potential method (pH method) end indication.

Potential method (pH method) the end of the pointing device. 0.001 acidity (mV, pH) dollars.

Current law endpoint indicating device. DC radiation galvanometer, resistance 3 measurement standard