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CCS N53



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

GB/T 11007-2008

Replacing GB 11007-1989

Test method of electrolytic conductivity analyzers

电导率仪试验方法

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Foreword

This standard replaces GB/T 11007-1989 "Conductivity Meter Test Method." This standard is the technical content and the main difference between the original criteria are as follows:

--- Reference standards are using the latest version;

1 Reference conditions according to GB/T 11606 modified. Wherein. the ambient temperature by the "(25 ± 2) °C" to "(23 ± 2) °C"; Atmospheric pressure from "Pending" to "(86 ~ 106) kPa"; increase Table

--- According conductivity meter display case, original standard conductance (symbol G) were changed to electric conductivity (symbol kappa);

--- Figure 1, the original standard temperature increase measured with analog devices (resistance box);

--- Original standard "basic error" was changed to "inherent error";

--- According to the current display of conductivity meter, conductivity measurement range to make the appropriate changes, see Table 3;

--- Cleaned before testing the conductivity cell from the conductivity of deionized water was "not larger than $0.2 \times 10^{-6} \text{ S} \cdot \text{cm}^{-1}$ " to "no more than $1 \times 10^{-6} \text{ S} \cdot \text{cm}^{-1}$ ";

--- Table 3, the original standard conductivity range of the standard solution does not have the number corresponding relationship, now changed to two tables (Tables 3 and 4);

5.3.2 basic error in the original standard test method for supporting an increase in the Standard Test Method for unknown cell constant and temperature increases error;

--- Original standard

5.3.9 Temperature compensation error from the operability has been modified; instead the temperature coefficient of the temperature coefficient compensation error Indication Error number representation;

--- Original standard

5.3.10 constant compensator error indication error switch cell constant representation;

1 Scope

GB/T 11007-2008 is the Chinese national standard on test method of electrolytic conductivity analyzers, in the field of chemical technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 30 June 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 January 2009. Classification: ICS 71.040.01, CCS N53. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the conductivity meter test items and methods. This standard applies to the determination of the electrolyte solution conductivity instrument, including sensors and an electronic unit (hereinafter referred to as the instrument).

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 11606 analytical instruments environmental test methods

JB/T 8277 conductivity meter with calibration solution preparation

JB/T 8278 Conductivity Meter test solution of sodium chloride solution preparation method

2.2 V 9 AC power frequency

0.5 Hz 10 AC power supply distortion $\beta = 0 - \beta = 0.05 - 11$ external electromagnetic interference should be avoided - - - 12 mechanical vibration is negligible - - - 13 job positions by the product specification - $\pm 1^\circ$ 14 ventilated - - -

Note 1. The relative humidity, atmospheric pressure, any value in this range.

3.2 rated operating range Rated operating range shown in Table 2.

3 Influence quantity

3.1 Reference conditions Reference conditions are shown in Table 1. Table

1 Reference conditions No. influence quantity reference value or tolerance range Unit Unit

An ambient temperature of $23\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ 2 ~ 75% relative humidity 45 - - 3 atmospheric

pressure 86 ~ 106 kPa - - 4 air flow 0 ~

0.2 m/s - - 5 no direct exposure to solar radiation - - - 6 harmful gases is negligible - - - 7

dust negligible - - - 8 AC supply voltage $220\text{ V} \pm$