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JJG

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

JJG 701-2008

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**Verification Regulation of Melting-point Measurement
Instruments
(English Translation)**

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Table of Contents

1 Scope (1)
2 Terms (1)
3 Overview (1)
4 Metering performance requirements (1)
4.1 Indication error (1)
4.2 Repeatability (1)
4.3 Linear heating rate of error (2)
5 General Requirements (2)
5.1 Appearance (2)
5.2 Insulation Resistance (2)
6 Control of measuring instruments (2)
6.1 Verification condition (2)
6.2 Verification Project (3)
6.3 Verification Methods (3)

6.3 Verification Methods (3)

Processing 6.4 Verification Results (5)

6.5 Test cycle (6)

Appendix A melting point of the reference material and instructions for use (7)

Appendix B test certificate (in-page) format (9)

Appendix C test results notice (within the page) format (10)

Appendix D value correction liquid glass thermometers (11)

Appendix E melting point detector test recording format (12)

Melting point detector test procedures

1 Scope

The order applies to melting point apparatus (hereinafter referred to as equipment) initial verification, and subsequent use of the subject Experience. Melting point apparatus including capillary melting point apparatus and method hot stage melting point apparatus.

2 Terms

2.1 capillary melting point as measured by capillary melting point called capillary melting point. Which measures are indirect measurement, it is measured temperature Capillary samples at ambient temperature, not the temperature of the sample.

2.2 thermal melting point Crystalline material, obtaining a dry air heat at atmospheric pressure, a small amount of its unlimited solid same liquid Temperature was called thermodynamic equilibrium thermodynamic melting point.

3 Overview

Capillary melting point apparatus for measuring a crystalline chemicals, pharmaceuticals capillary melting point or thermodynamic melting point.

The measuring principle of the instrument is heating the sample in the capillary transfer medium temperature observed phase transition or phase change when light transmittance Changes in order to determine the melting point, which is mainly composed of heating, temperature control, temperature and other components, temperature and mass media may be a liquid or solid body.

Theoretical thermal melting point is the melting point of the crystalline substance under ideal conditions, it is generally by measuring the freezing point and melting After the mathematical point of extrapolated. Some capillary melting point apparatus also has a function of measuring the thermodynamic melting point, the melting point is marked by the After the reference material to calibrate the instrument thermodynamic melting point measurement function, measurement of the sample obtained by capillary melting point and projections.

Hot Taiwan and France melting point detector for measuring the melting point of the crystalline chemicals, pharmaceuticals and partially crystalline polymer. instrument the measurement principle is heating the specimen slides and cover slips between the hot plate, by means of a microscope with polarizing Observed changes in light transmission properties of the phase transition process and automated measurements to determine the melting point of the phase transition, which is mainly composed of a hot plate, temperature measurement, control Mild with a microscope or some other polarizing device photodetector composition.

4 metering performance requirements Capillary melting point apparatus is divided by the maximum permissible error in the accuracy of the measurement range of 200 °C or less, etc.

Level, is divided into four kinds 0.2,0.5,1.0,1.5 grade; hot Taiwan and France melting point detector may be in different measurement ranges it has a different level of accuracy, 0.5, 1.0, divided into three levels.

4.1 Indication error Instrument indication error test results should not exceed the measurement performance requirements (Table 1) of the regulations.

4.2 Repeatability

Instrument Repeatability test results should not exceed the measurement performance requirements (Table 1) of the regulations.