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JJG

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

JJG 536-2015

Replacing JJG 536-1998

**Verification Regulation of Polarimeter and Polarimetric
Saccharimeters
(English Translation)**

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Introduction

The procedure according to JJF1002-2010 "national verification procedures to write rules" were written while using ICUMSA Specification and Standard SPS-1 (2009) (2009 Nian ICUMSA standards and SPS-1 standard Quasi) The international Brix scale. Compared with JJG 536-1998, in addition to editorial changes, the major technological change as follows.

--- Increased contents Introduction;

--- Increasing the content of terms and definitions (see 2);

--- The "optical glucose meter" in English, translated by Saccharimeter modify Polarimetric Saccharimeters;

--- Added "instrument indication error" in the near-infrared light source temperature correction formula (see 6.2.3.2);

--- Added "Auto rotation glucose meter low permeability indication error and repeatability should not exceed the level corresponding to begging. "Content (see 4.2.4);

--- Revised Brix scale "international Brix scale" in the near-infrared light source (see Appendix A);

- Canceled a procedure for testing the pipe requirements;
- Cancel the original statutes "verification certificate" appendix in Appendix D "test certificate/test results in the notice Page Format Shape "instead.

The previous versions of the release JJG 536 case.

- JJG 536-1988 visual polarimeter pilot test procedures;
- JJG 675-1990 automatic and automatic polarimeter optical glucose meter test procedures;
- JJG 536-1998 polarimeter optical glucose meter and test procedures.

Polarimeter optical glucose meter and test procedures

1 Scope

The order applies to polarimeter, optical glucose meter's initial verification, use and subsequent verification check.

2 Terms and definitions the following terms and definitions apply to this procedure.

2.1 Optical rotatorypolarization when linearly polarized light propagation in the medium, the plane of polarization rotation phenomenon.

2.2 Optical rotation specificrotation Also known as rotation rate. Characterization of the amount of the optically active substance of optical capacity size. It uses linearly polarized light through a unit thickness spin After its plane of polarization of light materials to represent the angle of rotation.

3 Overview

Polarimeter is an instrument measuring the optical rotation material, according to the instrument work is divided into visual and automatic polarimeter Categories. Optical glucose meter Brix scale is based on the international scale polarimeter, according to work is divided into visual instrument optically sugar Meter and automatic optical glucose meter categories.

Polarimeter and optical glucose meter (hereinafter referred to as the instrument) works. from the light source, a condenser lens, a diaphragm, filter Rays and other produce monochromatic parallel beam through the polarizer natural light into polarized light, and through the test tube, the analyzer it is hitting the eyepiece (visual instrument) or photodetector (automatic device). When the instrument is in the optical zero point, and the polarizer Vibration analyzer plane perpendicular to each other, substantially opaque, dark eyepiece field or photodetector output signal of the most small. When the test tube into the optically active substance characteristic, optical properties of a material having a polarized light rotated by a certain angle, the incident light and vibration analyzer is not perpendicular to the surface, resulting in a certain intensity of the transmitted light, bright field of view of

the eyepiece field of view or the photodetector output signal becomes large, and then turn the dial is connected to the analyzer by manual or servo motor (or polarizer , A quartz wedge), re-meet the basic opaque optical balance, which can be read or instrument or exhibit optical rotation Brix value is shown.

Figure 1 is a visual and visual polarimeter optical glucose meter optical structure.