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JJF 1821-2020

Calibration Specification for Temperature Calibration Devices for Polymerase Chain Reaction Analyzers

聚合酶链反应分析仪温度校准装置校准规范

(English Translation)

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Introduction

This specification is based on JJF 1071-2010 "Rules for the Compilation of National Metrology and Calibration Specifications" and JJF 1059.1-2012 Compilation of "Evaluation and Expression of Measurement Uncertainty".

This specification is released for the first time.

Calibration specification for temperature calibration device of polymerase chain reaction analyzer

1 Scope

This specification is applicable to the calibration of polymerase chain reaction analyzer temperature calibration device whose measuring range is (0~120)°C.

2 Reference documents this specification refers to the following documents.

JJG160-2007 Standard platinum resistance thermometer JJF 1030-2010 Specification for Technical Performance Test of Constant Temperature Bath JJF 1527-2015 Polymerase Chain Reaction Analyzer Calibration Specification YY/T 1173-2010 polymerase chain reaction analyzer for dated reference documents, only the dated version applies to this specification; for undated references the latest version (including all amendments) is applicable to this specification.

3 Term

3.1 Polymerase chain reaction analyzer Based on the principle of polymerase chain reaction (PCR) technology, it simulates the replication process of DNA or RNA.

In the presence of primers, polymerase, etc., a specific amplification of a known sequence, detection and analysis of equipment. Also known as gene cycler.

4 overview

The polymerase chain reaction analyzer temperature calibration device consists of a single-channel or multi-channel temperature measurement module, a data acquisition module, and a the structure of the temperature measurement module can simulate the polymerase chain reaction analyzer (with Hereinafter referred to as PCR instrument) The shape and structure of the sample reaction tube is mainly used to calibrate the temperature characteristics of the PCR instrument. Its composition block diagram is shown in Figure 1.

(a) Temperature measurement module (b) Data acquisition module (c) Display

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