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# NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA



# GB/Z 27427-2022

## Guidance to management of laboratory equipment

实验室仪器设备管理指南

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**Standardization Administration of China**

# Table of Contents





## Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part

1.Structure and Drafting Rules of Standardization Documents" drafted. Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents. This document is proposed and managed by the National Certification and Accreditation Standardization Technical Committee (SAC/TC261). This document was drafted by: China National Accreditation Center for Conformity Assessment, China Center for Disease Control and Prevention, Environmental and Health-Related Product Safety Institute, Zhejiang Institute of Metrology, Solid Waste and Chemicals Management Technology Center of Ministry of Ecology and Environment, Beijing Customs, and Testing Center of China Construction Research Institute have Co., Ltd., Peking University, Beijing Junyou Integrity Testing and Certification Co., Ltd., Xi'an Product Quality Supervision and Inspection Institute, China Instrument and Control Society, Beijing Institute of Science and Technology Analysis and Testing Institute (Beijing Physical and Chemical Analysis and Testing Center), Northwest University, Shaanxi Zhongsen Electric Power Technology Co., Ltd. Company, Shimadzu Enterprise Management (China) Co., Ltd. The main drafters of this document. Chen Di, Lv Jing, Yang Jiaolan, Liu Wei, Wang Yanfei, He Hong, Zhao Bingnan, Li Wenting, Zhao Jingmin, Zhang Xiao, Wu Dongliu, Zhou Jiang, Ran Xu, Yan Zecheng, Deng Xiaoli, Wu Yanwen, Qian Cheng.

The scientific management of laboratory equipment is the basis for ensuring the accuracy, stability and reliability of test data. This document is for laboratories The equipment, installation, acceptance, operation, maintenance, repair, scrap and other key links put forward comprehensive management requirements for the laboratory to standardize management. Provide technical guidance on management equipment. Laboratory Equipment Management Guide

## 1 Scope

GB/Z 27427-2022 is the Chinese national standard on guidance to management of laboratory equipment, in the field of services and company organization. The /Z suffix marks it as a guiding technical document: it does not prescribe requirements that can be certified against, but sets out the technique, the method or the state of the art that the standards bodies recommend following. It was issued on 12 October 2022 by the State Administration for Market Regulation; Standardization Administration of China. As a guiding technical document it carries no separate date of entry into force: it applies from publication. Classification: ICS 03.120.20, CCS A01. 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 document provides information on the equipment, installation, acceptance, operation, maintenance, repair, scrapping process and file management of laboratory equipment. guide. This document applies to all types of laboratories that use equipment, such as testing and calibration laboratories and scientific research laboratories. mobile real Laboratories and labs in non-fixed places can be used for reference.



## 2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

JJF1001 General Metrology Terms and Definitions ISO /IEC Guide

99 International Metrology Vocabulary Basic and Common Concepts and Associated Terms (VIM) [Internationalvocabu-

## 3 Terms and Definitions

The terms and definitions defined in JJF1001 and ISO /IEC Guide99 and the following terms and definitions apply to this document.

3.1 verification Provide objective evidence that a given project meets specified requirements. Example. Demonstration that performance characteristics or statutory requirements of the measurement system have been met. [Source: ISO /IEC Guide 99.2007, 2.44]

3.2 intermediatecheck In the process of using the instrument and equipment (including between two adjacent calibrations), verify whether its function or measurement characteristics can continue to full capacity according to the specified procedures. An operation that meets the requirements of the method or the requirements of the regulations.

Note 1."Method requirements" are the relevant requirements of a specific standard or method for the function or metrological characteristics of equipment. Note

2.The "specified requirements" are determined by the laboratory according to their own or customer needs, and are usually stricter than the "method requirements".

### 4.1 Non-self-made instruments and equipment

4.1.1 According to the process and requirements of its own activities, the laboratory formulates corresponding requirements and indicators for the equipment and equipment, including but not limited to Configuration requirements, installation requirements, performance indicators, operation indicators, environmental impact indicators, noise, electrical system and control functions, safety protection indicators, close Material of key parts, matching of consumables and reagents, interface relationship with other equipment and related public facilities, structure and appearance, computer system, practical laboratory environment, etc. The laboratory purchases instruments and equipment according to the above regulations and indicators.