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

GB/T 42125.13-2025

**Safety requirements for electrical equipment for measurement, control,
and laboratory use - Part 13: Particular requirements for laboratory
atomic spectrometers with thermal atomization and ionization**

(English Translation)

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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 for standardization documents" Drafting.

This document is Part 13 of GB/T 42125 "Safety requirements for electrical equipment for measurement, control and laboratory use".

The following parts have been published.

- Part 1: General requirements;
- Part 2: Particular requirements for laboratory equipment for heating materials;
- Part 3: Particular requirements for refrigeration equipment;
- Part 4: Particular requirements for climate and environmental tests and other temperature regulation equipment;
- Part 5: Particular requirements for laboratory centrifuges;
- Part 6: Particular requirements for test or measuring circuit equipment;
- Part 7: Safety requirements for hand-held and hand-operated probe assemblies for electrical measurement and test;
- Part 9: Particular requirements for hand-held multimeters and other instruments for household and professional use capable of measuring mains supply voltage;
- Part 10: Particular requirements for insulation resistance measurement and dielectric strength test equipment;
- Part 13: Particular requirements for laboratory atomic spectrometers with thermal atomization and ionization;
- Part 14: Particular requirements for automatic and semi-automatic equipment for laboratory use for analytical and other purposes;
- Part 15: Particular requirements for cabinet X-ray systems;
- Part 17: Particular requirements for equipment used by children in educational institutions;
- Part 18: Particular requirements for control equipment;
- Part 19: Particular requirements for electric control valve actuators.

This document is equivalent to IEC 61010-2-061:2018 "Safety requirements for electrical equipment for measurement, control and laboratory use Part 2-061 Part 1: Particular requirements for atomic spectrometers with thermal atomization and ionization for laboratory use.

The following minimal editorial changes have been made to this document.

- To coordinate with the existing standards, the name of the standard is changed to "Safety requirements for electrical equipment for measurement, control and laboratory use Part 13 Part 1: Special requirements for thermal atomization and ionization atomic spectrometers for laboratory use;

--- Deleted the informative Appendix L "Term Index".

Introduction

GB/T 42125 "Safety requirements for electrical equipment for measurement, control and laboratory use" is planned to consist of 20 parts.

--- Part 1: General requirements. The purpose is to specify the general safety requirements of electrical equipment for measurement, control and laboratory use and their accessories Require.

--- Part 2: Particular requirements for laboratory equipment for material heating. The purpose is to specify the special requirements for laboratory equipment for material heating.

Safety requirements.

--- Part 3: Particular requirements for refrigeration equipment. The purpose is to specify the special safety requirements for refrigeration equipment used in measurement, control and laboratory Require.

--- Part 4: Climate and environmental tests and special requirements for other temperature regulation equipment. The purpose is to specify climate and environmental tests Special safety requirements for testing and other temperature regulating equipment.

--- Part 5: Particular requirements for laboratory centrifuges. The purpose is to specify special safety requirements for laboratory centrifuges.

--- Part 6: Particular requirements for test or measuring circuit equipment. The purpose is to specify the special safety requirements for test or measuring circuit equipment.

Require.

--- Part 7: Safety requirements for hand-held and hand-operated probe assemblies for electrical measurement and testing. The purpose is to specify the safety requirements for hand-held and hand-operated probe assemblies.

Safety requirements for head assemblies and related accessories.

--- Part 8: Particular requirements for hand-held and hand-operated current sensors for electrical measurement and testing. The purpose is to specify the requirements for hand-held and hand-operated current sensors.

Special safety requirements for current sensors.

--- Part 9: Particular requirements for household and professional hand-held multimeters and other instruments capable of measuring mains voltage.

It is intended to specify special safety requirements for hand-held multimeters and other

instruments for household and professional use that can measure mains supply voltage.

--- Part 10: Particular requirements for insulation resistance measurement and dielectric strength test equipment. The purpose is to specify the output voltage AC Safety requirements for equipment used for insulation resistance measurement and dielectric strength testing at 50 V or DC 120 V and above.

--- Part 11: Particular requirements for sterilizers and washer-disinfectors used to process medical materials.

Particular safety requirements for sterilizers and washer-disinfectors using materials.

--- Part 12: Particular requirements for laboratory mixing and stirring equipment. The purpose is to specify electric stirring equipment used for mechanical stirring and stirring Particular safety requirements for laboratory equipment and its accessories.

--- Part 13: Particular requirements for laboratory atomic spectrometers with thermal atomization and ionization.

Particular safety requirements for atomization and ionization atomic spectrometers.

--- Part 14: Particular requirements for automatic and semi-automatic equipment for laboratory analysis and other purposes. The purpose is to specify the Particular safety requirements for automatic and semi-automatic equipment for analytical and other purposes.

--- Part 15: Particular requirements for cabinet X-ray systems. The purpose is to specify special safety requirements for cabinet X-ray systems.

--- Part 16: Particular requirements for in vitro diagnostic (IVD) medical devices. The purpose is to specify the intended use for in vitro diagnostic medical purposes Special requirements for medical devices.

--- Part 17: Particular requirements for equipment used by children in educational institutions. The purpose is to specify the requirements for the use of equipment by student operators in educational institutions.

Particular safety requirements for electrical equipment and accessories.

--- Part 18: Particular requirements for control equipment. The purpose is to specify the special requirements and related requirements for control equipment used in industrial environments identification test.

--- Part 19: Particular requirements for electric control valve actuators. The purpose is to specify the requirements for electric control valve actuators installed in industrial processes or discrete control Safety requirements for electric control valve actuators and solenoid coils in environments.

--- Part 20: Particular requirements for industrial communication circuits and communication