

ICS 17.240

CCS F87



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

GB/T 10255-2013

Replacing GB/T 10255-1996

Gamma radioimmunoassay counter

γ放射免疫计数器

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Quarantine of the People's Republic of China;
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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB/T 10255-1996 "gamma RIA counter," compared with the GB/T 10255-1996 major technological changes as follows:

- Increase in the introduction, the basic components of gamma RIA counter into the introduction;
- Chapter 2, "Normative references" using the latest files and add new files;
- "Terms and Definitions" in the original "Activity Response" to "detection efficiency," increase "detection efficiency of the non-linear", "additional error 'Edit To "influence the amount of error" (see Chapter 3);
- 1 Product Classification Index (background count rate $\leq 50\text{min}^{-1}$, detection efficiency $\geq 80\%$) grade I product (see 4.3.1);
- Delete "timing accuracy" requirements and test methods (see 1996 version 4.7);
- The "Count Precision" to "repetitive" and add test methods standard deviation, and it is written in Appendix A (Informative Appendix) (see 5.5);

--- "And affect the amount of the technical characteristics related to" in accordance with GB/T 8993-1998 "Nuclear instruments - Environmental conditions and testing methods" 4.2.2a) and 4.2.6e),

c) the environmental conditions specified groups, according to Table 1 and Table

3.1 require modification of this standard in Table 3 "Temperature" and "relative humidity" two influence quantity the rated range; Table 3 in the storage test and packing and shipping test "normal Work "with" the same level of detection efficiency "(see 4.10);

--- In the "standard test conditions" in accordance with the GB/T 8993-1998 requirements in Table

8 Table 4 of this revised standard "relative humidity" of Standard test conditions and

"environmental radiation" reference conditions (see 5.1.1);

--- In the "inspection rules" in accordance with the GB/T 10257-2001

5.1 requirements of the revised standard in Table 5 and the test sequence Grouping (see Chapter 6). The standard proposed by the Defense Science and Technology Industrial Development Bureau. This standard by the National Nuclear Instrument Standardization Technical Committee (SAC/TC30) centralized. This standard was drafted. Xi'an Nuclear Instrument Factory. The main drafters of this standard. Sun Liping, Yang Niying, Ren Min. This standard replaces the previous standard release follows.

1 Scope

GB/T 10255-2013 is the Chinese national standard on gamma radioimmunoassay counter, in the field of metrology and measurement. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 11 December 2012 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 July 2013. Classification: ICS 17.240, CCS F87. 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 standard specifies the gamma RIA counter (hereinafter referred to as "gamma counter") technical requirements, test methods, inspection rules, and standard Chi, packaging, transportation, storage and accompanying documents. This standard applies to all types of gamma RIA counter.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 191-2008 Packaging - Pictorial signs

GB/T 4078-2008 radioactivity measurement sample tray, bottles and test tubes of dimensions

GB/T 8993-1998 nuclear instruments - Environmental conditions and testing procedures

GB 9706.1-2007 Medical electrical equipment - Part 1. General requirements for safety

GB/T 10257-2001 nuclear instruments and nuclear radiation detectors Quality inspection

rule

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Energy response energyresponse Relationship between pulse amplitude and radionuclide radiation energy between.

3.2 Detection efficiency detectionefficiency The relationship between the measured values \u200b\u200band the measured activity to check the source of gamma counter.

3.3 The detection efficiency of nonlinear non-linearityofdetectionefficiency Relations activity gamma counter detection efficiency and examine the source under test between.

3.4 Effect of the amount of error influencequantityerror Relative partial gamma counter under the influence of variation values \u200b\u200bare measured values \u200b\u200bwith the device under standard test conditions measured between Difference, expressed as a percentage. 4. Technical Requirements

4.1 Appearance All kinds of signs should be visible, clear and firm; surface coating layer should be firm, smooth, there should be no corrosion, cracks, flaking of the coating; fasteners should Loose and so on.