

ICS 27.120

CCS F88



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

GB/T 13376-2008

Replacing GB/T 13376-1992

Plastic scintillators

塑料闪烁体

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Foreword

This standard replaces GB/T 13376-1992 "plastic scintillator." This standard compared with GB/T 13376-1992 main changes are as follows:

- Increasing the term "beta and gamma efficiency ratio" (see 3.5);
- Table title will be increased;
- Table 3 reduced the number of defects allowed to exist and size (see 5.2);
- Original table is split into 5 tables 5 and 6, in order to articulate common plastic scintillator core performance indicators and high beta/gamma-type plastic scintillator The core performance indicators (see 5.4);
- Increasing the measurement probe beta/gamma-type plastic scintillator (see 6.6);
- Detailed drawing of FIG. 3, the single-photon measurement of scintillation decay time measuring devices more intuitive (see 6.8.2). The standard proposed by China National Nuclear Corporation. This standard by the National Standardization Technical Committee on nuclear instrumentation. This standard was drafted. nuclear (Beijing) Nuclear Instrument Factory. The main drafters of this standard. Qu Yuhui. This standard replaces the previous standard release case. GB/T 13376-1992. Plastic scintillator

1 Scope

GB/T 13376-2008 is the Chinese national standard on plastic scintillators, in the field of energy and heat transfer engineering. 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 2 July 2008 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 April 2009. Classification: ICS 27.120, CCS F88. 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 classification of plastic scintillator, technical requirements, test methods, inspection rules, packaging and storage. This standard applies to all kinds of plastic scintillator products, these products quality inspection and quality assessment basis.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

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

GB/T 10263-2006 nuclear radiation detectors of environmental conditions and test methods

GB/T 13181 scintillator Methods for measuring performance EJ/T 1061 nuclear radiation detector type designation

3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 The number of photons emitted by the scintillator with wavelength or photon energy profile of the change. [GB/T 4096.6-1996, the definition 2.3.13]

3.2 From the scintillator by a single shot to the time of its maximum photon emission rate dropped to 1/e of need. [GB/T 4096.6-1996, the definition 2.3.5]

3.3 The number of particle detectors to measure the ratio of the number of particles in the same time interval of the detector. [GB/T 4096.6-1996, the definition 2.1.23]

3.4 Test or calibration system for correcting other scintillator scintillator properties.

3.5 When measuring beta-ray source in the strong field of gamma, beta and gamma detection efficiency detection efficiency ratio.

4 Products

4.1 Classification plastic scintillator body Classified plastic scintillator in Table 1.