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

GB/T 20013.3-2015

**Nuclear medicine instrumentation -- Routine tests -- Part 3:
Positron emission tomograph
(English Translation)**

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Foreword

GB/T 20013 Nuclear medicine instrumentation - Routine tests consists of four parts.

- Part 1. Radiation counting system;
- Part 2. Scintillation cameras and single photon emission computed tomography imaging (SPECT);
- Part 3. Positron emission tomographs;
- Part 4. Radionuclide calibrator.

This Part is the third part of GB/T 20013.

This Part was drafted in accordance with the rules given in GB/T 1.1-2009.

This Part identically adopts IEC TR 61948-3.2005 Nuclear medicine instrumentation - Routine tests - Part 3. Positron emission tomographs. For easy use, this Part makes the following editorial modifications.

- deleted the foreword and introduction of IEC TR 61948-3.2005; added the foreword of this Part;
- in Clause 2 "Normative references", added the introduction according to the requirements of GB/T 1.1-2009;
- for other International standards referred in IEC TR 61948-3.2005, if they

have been transferred into China national standards, this Part used China national standard reference number to replace the corresponding International standard reference number;

- used decimal point "." to replace "," which was used as decimal point;
- used "this Standard" to replace "this International Standard".

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The issuing authority shall not be held responsible for identifying any or all such patent rights.

This Part was proposed by State Food and Drug Administration.

This Part shall be under the jurisdiction of National Technical Committee on Medical Electrical Equipment of Standardization Administration of China (SAC/TC 10).

Nuclear medicine instrumentation - Routine tests -

Part 3. Positron emission tomographs

1 Scope

This Part of GB/T 20013.3 is valid for POSITRON EMISSION TOMOGRAPHS utilizing stationary or moving detectors in a circular arrangement.

This Part is not valid for SPECT-systems operated in coincidence mode. In the framework of QUALITY CONTROL, this Part describes test methods suitable for the purpose of routine testing. Methods used for acceptance testing are described in GB/T 18988.1-2003.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 18988.1-2003 Radionuclide imaging device - Characteristics and test conditions - Part 1. Positron emission tomograph (IEC 61675-1.1998, IDT);

GB/T 20013.2-2005 Nuclear medicine instrumentation -Routine test - Part 2.

Scintillation cameras and single photon emission computed tomography

imaging (SPECT) (IEC 61948-2.2001, IDT)

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

NOTE A certain number of terms used in this document have been drawn from GB/T 17857, GB/T 18988.1 and GB/T 20013.1-2005 (see Index of defined terms).

3.1 quality control

part of the quality assurance in nuclear medicine including tests of instruments

with appropriate test methods

NOTE Includes both acceptance test and routine test.

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