



TECHNICAL REPORT

Nuclear medicine instrumentation – Routine tests – Part 4: Radionuclide calibrators

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

NUCLEAR MEDICINE INSTRUMENTATION – ROUTINE TESTS –

Part 4: Radionuclide calibrators

FOREWORD

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IEC TR 61948-4, which is a Technical Report, has been prepared by subcommittee 62C: Equipment for radiotherapy, nuclear medicine and radiation dosimetry, of IEC technical committee 62: Electrical equipment in medical practice.

This second edition cancels and replaces the first edition published in 2006. This edition constitutes a technical revision.

This edition includes the following significant technical change with respect to the previous edition: the test method to determine SYSTEM LINEARITY has been updated to reflect the technical developments of RADIONUCLIDE CALIBRATORS.

The text of this Technical Report is based on the following documents:

Draft TR	Report on voting
62C/715/DTR	62C/727/RVDTR

Full information on the voting for the approval of this Technical Report can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

Terms used throughout this document that have been defined in Clause 3 appear in SMALL CAPITALS.

A list of all parts in the IEC 61948 series, published under the general title *Nuclear medicine Instrumentation – Routine tests*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

NUCLEAR MEDICINE INSTRUMENTATION – ROUTINE TESTS –

Part 4: Radionuclide calibrators

1 Scope

This part of IEC 61948 covers the ROUTINE TESTING of RADIONUCLIDE CALIBRATORS used in nuclear medicine. Such devices utilise ionisation chambers of the well type and a direct readout in units of ACTIVITY. Requirements and specific methods to determine performance parameters are described in IEC 61303. These methods are primarily designed for ACCEPTANCE TESTING.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

IEC TR 60788:2004, *Medical electrical equipment – Glossary of defined terms*

IEC 61303:1994, *Medical electrical equipment – Radionuclide calibrators – Particular methods for describing performance*