Thermal neutrons

Thermal Neutrons TLD is a dosimeter used for personal and/or environmental monitoring of thermal neutron radiation using thermoluminescence technology.

Neutron interior.

Picture for illustration purposes only. DO NOT open the casing.

The high sensitivity of thermoluminescent materials, matched with the low counting noise (photo counting noise) in the measurement system and reader automation, enables the RADOS® system to meet the customers' needs, providing excellent answers to all types of radiation in health care, industry and research sectors.

The TLD method is particularly effective for the accuracy of measurement of neutron fields generated by radioisotopes, particle accelerators, as well as unshielded or partially shielded Beryllium / Californium-252 or Beryllium / Americium-241 sources.

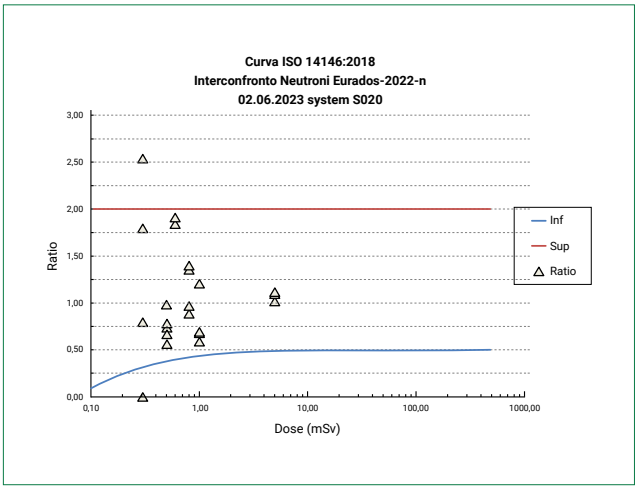
TECNORAD provides the highest quality with a pair of TLD LiF:MCP detectors with different isotopic mixture (GR-200A and GR-206A). Both detectors are placed under a suitable copper filter so as to equalize the response due to background or undesired photon radiation. In this way, only the contribution due to the neutron field will impact the response in the two TLDs, allowing proper assessment and evaluation of the absorbed dose.

It can be easily attached to work clothes by clips, or placed in working environments, using the various fastening/storage systems.

This dosimeter provides:

- Pair of detectors: LiF:Mg, Cu, P GR-200A and GR-206A With high detection efficiency;
- **Wide linearity range** in dose measurement from 20 µSv to 10 Sv;
- Data management: **permanent record of reading glowcurves and of the entire measurement chain**;
- **Measurement guarantee: passing of intercomparison tests according to ISO 14146**;
- **Ergonomic and lightweight** (less than 10 g).

Interlaboratory tests



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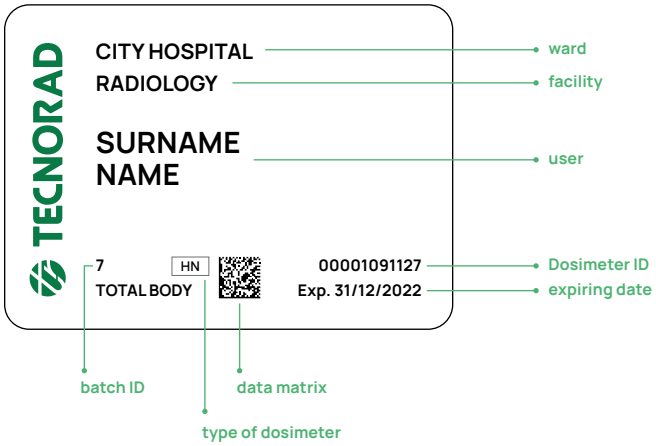
Technical specifications

Dosimeter	Thermal Neutron (HN)
Type and number of detectors	2 detectors LiF GR-200A and GR-206A
Type of case	Plastic material (ABS) with filters
Measured dosimetric magnitude	$H_p(10)$ e H*(10)
Energy response range	< 2 eV (TL)
Dose measurement range	20 µSv - 500 mSv (TL) under controlled conditions up to 10 Sv
Dose calculation algorithm	Linear
Minimum detectable dose-DMR	20 µSv under controlled conditions

Smart Color Label

The dosimeters are delivered to the user with labels with the following in plain text: **Name and Surname, Facility, Ward, Expiration Date**.



The labels have different colors in periodic rotation, which facilitate the distribution and collection of dosimeters.

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Archimedes Portal Changes are tracked and available online.

Descartes Portal Access and export of Test Reports & Dose Reports.

Pythagoras Portal For computerized management and dematerialization of personal dosimetry records.

The offer includes

Response time: 20 working days

Detector analysis and delivery of Test Reports on the dedicated portal

Possibility to request personal dosimetry cards software "Pythagoras".

Apply for your personal account at: commerciale@tecnorad.it

All necessary supports
For proper use.

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