



Pdose OSL Dosimetry System

Quick and easy dose measurement by OSL Technology

Regulatory authorities (IAEA, ICRP, AAPM) recommends tracking and measuring the patient doses. For this purpose, **Pdose OSL dosimetry system**, has smooth and stable design, was developed to measure patient exposed dose using the **Optically Stimulated Luminescence (OSL)** technique.

Pdose OSL dosimetry system technologically enhanced by using tissue equivalent **Beryllium-Oxide (BeO)** crystal for personal monitoring.

BeO crystal provides biggest advantage is lower photon energy dependency through effective atomic number (perfect tissue equivalent).

Current **QUALITIES** of **BeO** become it an excellent chose in field of personal and environmental dosimetry applications. Also OSL System consist of high optic sensitivity, accurate dose measurement, portable size and advanced mechanical strength.

The Pdose OSL dosimeter is all-purpose and made available for measurement on phantom and/or in clinic applications can be performed. The point dose determination is easier with minimized dosimeter's size placing special belts on target locations.

***Pdose OSL dosimetry system was developed with the aim of using as a Radiologic Quality Assurance System in medical applications. It should not be used to adjust the radiation dose delivered to a patient.*

Pdose OSL Reader/Eraser;



***Pdose OSL Dosimetry System**

Pdose OSL Dosimetry System content:

- OSL reader-eraser
- Computer
- Software
- Barcode Reader
- Dosimeters
- QC & QA sets



***Carriage box of Pdose OSL Dosimetry System**



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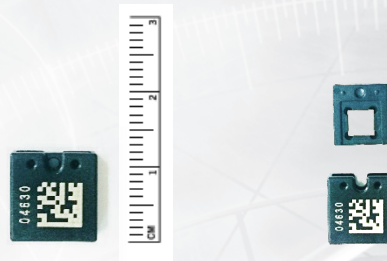
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System Technical Specifications

- Use of crystals that have Optically Stimulated Luminescence (OSL) features,
- Tissue equivalent BeO crystal (effective atomic number $Z = 7.11$),
- Re-erasing and using several times (with extra calibration at high dose),
- Sterilization according to application areas and use as in-vivo.
- Sensitivity of all photon energy proceed from 16 keV to 6-25 MV Linac,
- Measuring all photons in 16 keV-6.7 MeV energies,
- Measuring in 0,1mGy-10 Gy doses,
- < 20 sec as a function of dose reading time,
- Give dose results in SI units (Gy).

Usage steps of the specially developed Pdose OSL dosimetry system;

- performing daily quality tests automatically
- measuring dosimeters into the reader
- erasing dosimeters into the eraser
- doing verification process as second readout
- saving data



***Pdose Dosimeters**

Useful and Simple Pdose Point Dosimeter Design;

- Size of Pdose ($12 \times 12 \times 4 \text{ mm}^3$) is quite suitable for point dose measurement
- 2D barcode and serial number on front side of each dosimeter
- Codifying as numerically for using comfortably by clinic experts in addition to barcode

The special QC-QA sets are improved for radiation quality control tests according IAEA TECDOC.

The Pdose OSL dosimetry system provides proficiency tests;

- ISO/IEC 60950:2019 standart
- TRS 457
- TRS 469
- CE

The RADKOR Quality system provides proficiency tests;

- ISO 9001:2015
- ISO/IEC 17025:2017

(For irradiation and calibration laboratories)