

Mammography QA Dosimeter for X-Ray Radiation

The Landauer Mammography QA dosimeter is a precise thermoluminescent dosimeter designed to measure half value layer (HVL) and exposure. This information enables one to calculate mean glandular dose using data tables presented in such documents as NCRP Report No. 149, *A Guide to Mammography and Other Breast Imaging Procedures* (2004).



Specifications

The Mammography QA dosimeter is a tool for the medical or radiological physicist for performing quick, periodic checks of machine performance between more extensive QA examinations. The exposure strips are an easy and cost effective way to obtain exposure data for in-house quality assurance programs and for state testing programs. Custom graphics and text for administrative handling can be incorporated on the face of the dosimeter.

The dosimeters are designed for exposure on a phantom, and then returned to Landauer for processing and analysis. Service includes a comprehensive report detailing the determination of exposure and HVL.

Landauer's Mammography QA dosimetry service is a result of a collaborative effort with the American College of Radiology. The dosimeter was first engineered for use in the ACR Mammography Accreditation Program created to address the concerns of professionals that women receive optimal mammographic examinations at the lowest risk.

Technical Specifications

- Each dosimeter contains 15 TLD chips—highest efficiency dosimeter of 100% TL grade lithium fluoride with no binder.
- 3 TLDs are placed under each of 5 filter thicknesses.
- Energy Range:
Photon (x-ray) - 30 mrad to 6,000 rad.
- Film screen dosimeter has an "open window" and 4 aluminum filters ranging from 0.2mm to 0.5mm.
- Control dosimeter is included with each shipment.