

Landauer OSL Technology/RadWatch-RadLight Program



Landauer has developed the latest in tactical/field radiation monitoring technology. The **RadWatch** dosimeter designed to operate under field conditions and is sophisticated enough to measure routine radiation environments to low-level radiation dangers from depleted uranium. Worn on the wrist or chest, it measures whole body exposure to photons and neutrons. The **RadWatch** contains both primary and backup detectors and a built-in RFID chip, which hold identification and sensor calibration data and stores dose results from the most recent analysis. The **RadWatch** features OSL technology, trusted to provide accurate dose information from ionizing radiation. All analytical data is stored in the **RadLight Reader** for download to a computer via a USB connection, facilitating additional analysis and reporting. Dosimeters to be read are simply inserted into the reader's drawer assembly, which automatically positions their built in sensors for analysis by the photo-optical engine. The **RadWatch** and **RadLight Reader** solution provides a legal dose of record useful for dose reconstruction, risk mitigation and legal defense.



OSL Benefits

Landauer's proprietary technology, optically stimulated luminescence (OSL), offers many key advantages to those using the **RadWatch** in field conditions. Not only does the **RadWatch** program provide a unique solution in itself, the OSL is far superior to the 40 year old TLD technology. Key features and advantages

OSL Feature	OSL Benefits	OSL Advantage	TLD
1) Non-destructive Readout	<ul style="list-style-type: none"> • Re-read dosimeters numerous times • Enables onsite analysis with RadLight portable reader 	<ul style="list-style-type: none"> • Immediate radiation assessment without losing integrity from final accredited dose of record analysis • Dose data validation 	Not applicable
2) No Fade	Wear dosimeters for longer wear periods	Assign dosimeters on annual basis without losing valuable dose data due to fade, labor savings with fewer exchanges	Not recommended
3) Neutron sensitive OSL (OSLN)	Immediate neutron dose assessment onsite	One detector for measuring all types of radiation	Neutron sensitive TLD available but no portable onsite analysis
4) Excellent emergency response technology	Excellent backup to electronic dosimeters	<ul style="list-style-type: none"> • Immediate onsite dose assessment to validate electronic dosimeter information • Inexpensive solution for high volume monitoring with accredited dose of record analysis • Small dosimeters with portable in field analysis 	Not applicable
5) Equipment Redundancy	Emergency backup throughout the world	<ul style="list-style-type: none"> • No downtime • Reliability • 3rd party independent analysis 	Not applicable