



# MICROSTAR<sup>®</sup>

## OSL portable reader

microStar is a portable reader for in situ assessment of OSL (Optically Stimulated Luminescence) detectors, for our OSL dots called nanoDot<sup>®</sup> or our standard IPLUS<sup>®</sup> dosimeters. With the microStar<sup>®</sup>, you could easily monitor the doses, quickly measure on site, effectively check the doses of patients or staff and so on!



microStar  
In situ OSL dosimeters  
and dots reader

### IN SITU DOSE MEASUREMENTS WITH AN EASY-TO-USE READER

- **Compact, lightweight, portable**

Our reader can be taken anywhere whenever immediate results are required.

- **Plug-and-operate**

microStar is used with a laptop. It doesn't require any gas, and plugs directly into an electrical socket.

- **Reduce maintenance**

- **Multiple readings**

- **Immediate results**

#### The Pocket Annealer

The microStar family includes a Pocket Annealer. It allows you to simply anneal one IPLUS dosimeter at a time to make a new reading.

**Annealing Time: fully selectable from 1 to 255 seconds per dosimeter**

**Annealing Performance: 10 seconds of exposure to reach a value less than 0.1 mSv with an initial dose < to 1 mSv**

More information on request.





## OVERVIEW

The microStar quickly and efficiently reads nanoDot, IPLUS whole body or environmental dosimeters. The microStar pack is delivered with a dosimeter kit of your choice. Each kit includes a kit of dosimeters for measuring and a kit of dosimeters for calibration and quality controls of the reader.

Its software stores multiple calibrations, allowing the microStar to establish a variety of radiation environments for accurate analysis.

There is a variety of measurement units available. The reports can be downloaded in XLS, PDF, XML or CSV formats and customised.

### Quick reading

The process requires three steps only:

1. select the reading mode,
2. put the detector in the drawer of the microStar,
3. display of the dose.



microStar nanoDot  
adaptor

## MEASUREMENT METHOD

The OSL radiation detector is a thin strip of specially formulated aluminium oxide  $Al_2O_3:C$  crystalline material. During analysis, the  $Al_2O_3:C$  strip is stimulated with selected frequencies of light causing it to glow in proportion to the amount of radiation exposure and the intensity of the stimulating light source.

The optical stimulation keeps more than 99% of the information in the detector making possible multiple readings and the archiving of the dosimeter for later investigation.

Note: the aluminium oxide,  $Al_2O_3:C$ , used in our dosimeters is produced by LANDAUER®.



IPLUS filter-case

## TECHNICAL SPECIFICATIONS

<b>Dimensions (cm)</b>	12 H x 33 L x 24 W
<b>Weight</b>	16 kg
<b>Power supply</b>	110 - 220 V 1,5 A / 50 - 60 Hz
<b>Load capacity</b>	Manual (1 dosimeter)
<b>Type of dosimeters</b>	OSL: IPLUS and nanoDot
<b>Measurement units</b>	gray, sievert, rem, rad and their multiples
<b>Reading time</b>	100 dosimeters per hour
<b>Operating temperature</b>	-10 °C to 40 °C
<b>Hydrometry</b>	< 90 %

## APPLICATIONS

- Monitor a dosimetry laboratory (< 1,000 participants; little or no automation)
- Workstation studies
- Radiology emergency
- Patient dosimetry\*

\*The microStar dosimetry reader is classified as a Radiologic quality Assurance Instrument, and should not be used to adjust the radiation dose delivered to a patient.