LANDAUER®

Application Note

For nanoDot™ and the microSTAR®ii Medical Dosimetry System (FDA 510K - K192196)

Introduction

The LANDAUER microSTARii Medical Dosimetry System provides an accurate, reliable, and easy-to-use dosimeter and reader. The system is intended for use in measuring dose on-phantom or on-patient in medical dosimetry applications such as secondary verification of treatment planning in external beam radiotherapy and brachytherapy, and the measurement of dose uniformity and radiation exposure to the patient in diagnostic radiology.

This application note provides storage techniques post-exposure that can be used to improve the overall uncertainty in measurements using the nanoDot and the microSTARii Medical Dosimetry System.

Control Methods

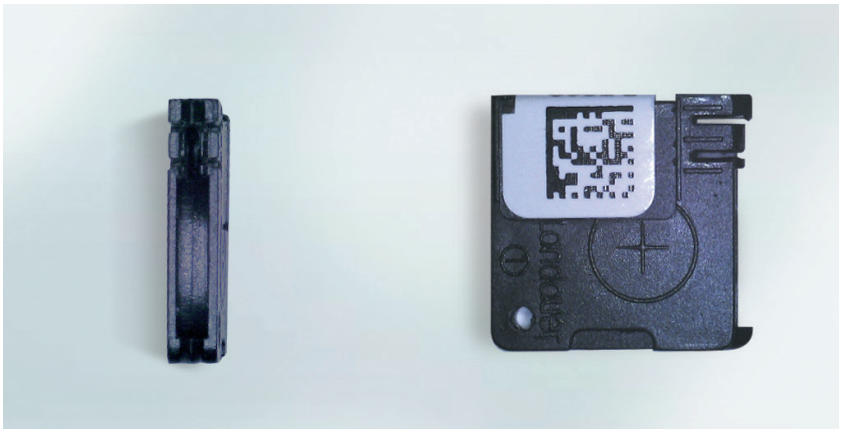
Storing the nanoDot on edge with the opening for the detector facing strong florescent light for more than a week post-exposure prior to reading can result in a 1% reduction in the measured dose result. See below for the orientation to avoid.

Improper nanoDot Storage Orientation

This potential error has been assessed and if this unlikely scenario did occur, the dosimeter would still comply with the quoted ±5.5% accuracy of the system.

To minimize the impact of loss of signal from annealing nanoDots should be laid down and not stored on edge.

opening for detector



✖ nanoDot on edge ✔ nanoDot laid down