

Dosimetric evaluation of a new design MOSFET detector: Initial results

We have evaluated the accuracy and reproducibility of a new design MOSFET detector (Thomson&Nielsen TN-502ANG). The detectors' energy, modality, and angular dependence have been investigated and compared to the manufacturer's current detector design (TN-502RD). Accuracy of dose readings near the surface have also been evaluated.

The results of these evaluations demonstrate a significant reduction in angular dependence compared to the current design. Surface doses with the new design show very good agreement with our parallel-plate ion chamber measurements.

Energy and modality dependence, as well as reproducibility, are consistent with the current design.