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Ansto



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## Microbeam Dosimetric Verification using Presage® Dosimeters

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Dosimetric properties of synchrotron microbeams are extremely difficult to measure due to the small field sizes employed (typically 50 um width with 200 – 400 um peak-to-peak spacing) and must undergo rigorous validation before patient treatments can be performed on the IMBL.

The radiochromic PRESAGE® dosimeter offers a unique opportunity to validate dosimetry models in 3D with similar radiological responses to water over a wide energy range that includes synchrotron energies for SSRT and MRT treatments.

Our previous work on the IMBL verified the dosimetric properties of synchrotron beams with ion chamber measurements, radiosensitive film and Monte Carlo simulations for SSRT beams using 3D optical CT on water-equivalent PRESAGE® dosimeters.

In this work Laser Fluorescence Confocal Microscopy (LFCM) has been utilised to investigate the dosimetric properties of MRT beams with water-equivalent PRESAGE® dosimeters.

### Keywords or phrases (comma separated)

#### Are you a student?

No

#### Do you wish to take part in the Student Poster Slam?

No

#### Are you an ECR? (<5 yrs since PhD/Masters)

No

#### What is your gender?

Male

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