Analysis of response of PVA-GTA Fricke gel dosimeters through magnetic resonance imaging.

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Comunicazione

V - Biofisica e fisica medica

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The experimental activities here reported are focused on the analysis of the clinical applications of Fricke gel dosimeters produced with a matrix of Polyvinyl alcohol (PVA) cross-linked by adding glutaraldehyde (GTA). The analyses were performed by means of a 1.5 T clinical magnetic resonance imaging (MRI) scanner. The sensitivity of these dosimetric gels to clinical photon beams as well as the signal stability were suitably investigated. Furthermore, the effect of the xylenol orange on the MRI signal was analyzed. The results obtained show that these PVA-GTA gel dosimeters show good dosimetric features for possible future use for 3D dose mapping in clinical applications.