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[OA030] Improved dose sensitivity of N-(isobutoxymethyl) acrylamide polymer gel dosimeters for radiation therapy

Khalid Rabaeh [a], Musab Al-Ajaleen [b], Manar Abuzayed [b], Feras Aldweri [b]

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Purpose

A new and very low dose sensitivity of polymer gel dosimeter containing N-(isobutoxymethyl) acrylamide was introduced (Salah et al., 2017). A significant increase in dose response as well as dose sensitivity of N-(isobutoxymethyl) acrylamide polymer gel dosimeter has been reported in this study.

Methods

The N-(isobutoxymethyl) acrylamide (NIBMA) gels were fabricated under a fume hood in normal atmospheric conditions. Gels were irradiated by X-ray beams of a medical linear accelerator. The irradiated gel dosimeters were evaluated using nuclear magnetic imaging (NMR) techniques in terms of relaxation time (T_2) of hydrogen protons within the water molecule.

Results

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