第２５５回原医研セミナー
第１９回放射線災害・医科学研究 機構・拠点研究推進ミーティング

Zoom( )ID 890 6191 5257

Zoom URL

https://us02web.zoom.us/j/89061915257?pwd=Uk93L2JWWDJ3dnFkYmkvSjFGN21DZz09

Zoom 538773 URL

Dosimetric properties of a novel radiochromic gel composed of polyvinyl alcohol, iodide, and silica nanoparticles (PAISiN)

Welti Sophia

Radiochromic gel materials are of special interest for applications in three-dimensional dosimetry, particularly in the clinical settings of radiation therapy, in addition to possible uses in personal and environmental monitoring. Currently, we have been developing a novel gel material composed of polyvinyl alcohol, potassium iodide, and silica nanoparticles (called “PAISiN” hereafter). The obtained results show a high potential for use in on-site monitoring of local exposure of workers’ hand/fingers. These qualities include immediate and clearly visible color changes when exposed to radiation, proportional to radiation exposure, reusability, portability, and dose-rate independence in coloration. This last quality is important, but yet to be confirmed, to ensure that the gel can be used to accurately determine radiation doses in any exposure situation. In this presentation, we introduce the basic properties of PAISiN, such as dose response, reusability, long-term stability, applicable dose range, and preferable storage conditions.

LRP12 CGG

ALS
C9orf72 ALS
1 OPDM1 LRP12 ALS
5 2 LRP12 CGG
ALS LRP12-ALS 61-100 OPDM
LRP12-OPDM 100-200 LRP12-ALS iPS
iPSMNs TDP-43 RNA foci
LRP12-OPDM Muscleblind-like 1 OPDM
LRP12 CGG ALS OPDM