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Production radio-chromic films dosimeter for low and high irradiation dose application

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The purpose of this reseach is to provide a dosimeter films for industrial and medical applications using different types of dyes with polyvinyl alcohol as support (using a concentration of 1 ml and 3 thicknesses of (10, 15, 20 μm), and PVA films were exposure to gamma rays. The films were exposure to different dosages range (from 5-60 kGy). UV/VIS spectrophotometer was used to measure the colour change of film dosimeter before and after exposure to gamma rays (at 250 to 800nm), Also the film stability was studied at different time periods 1, 7 and 14 days is done for all films. However, in this study, a natural dye (RO-H, RO-C) was also used (400 to 800 nm). The RO-H film gives better result than Ro-C, which need further study with different parameters.

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