



Contribution ID: 369

Type: Poster

ESR Dosimetric Properties of Sodium Glutamate

Wednesday, 26 April 2017 14:15 (2 hours)

MONO SODIUM GLUTAMATE powder and rods (3x 10 mm) were studied to be a radiation sensitive material for ESR dosimetry. Samples were irradiated with ^{60}Co γ - rays. The developed signal after irradiation increases with the increase of the mono sodium glutamate in the rods. The prepared powder can be used in the dose range from (10-90) kGy, whereas the rods are useful in the range from (10-120) kGy. The obtained number of free radicals per 100ev (G value) was found to be 0.201 ± 0.01 . The g factor is 2.0113 ± 0.0001 . The rods have the advantage of negligible humidity effects during irradiation. The pre and post irradiation stability was found to be satisfactory.

Keywords: Mono sodium glutamate, Electron paramagnetic resonance, Radiation dosimetry.

Country/Organization invited to participate

Egypt

Primary author: Mr EID, Seif Ebraheem (National center for Radiation Research and Technology, Egypt)

Presenter: Mr EID, Seif Ebraheem (National center for Radiation Research and Technology, Egypt)

Session Classification: P-A1

Track Classification: IRRADIATION FACILITIES