

# Characterization of phenolic pellets for ESR dosimetry in photon beam radiotherapy.

**Gallo S.**, Collura G., Iacoviello G., Panzeca S., Veronese I., Bartolotta A., Marrale M.

## Comunicazione

*V - Biofisica e fisica medica*

Aula A209 - Lunedì 11 h 14:30 - 18:30

» [Download abstract](#)

We report a study of the dosimetric features of phenolic compounds for applications in radiation therapy dosimetry of clinical photon beams by using ESR spectroscopy. After the optimization of the ESR readout parameters, basic dosimetric properties (such as intra-batch reproducibility, dose-response, sensitivity, linearity, dose rate dependence, tissue-equivalence and signal stability) of laboratory-made phenolic dosimeters in form of pellets were investigated. Furthermore, these dosimeters were tested for measuring the depth dose profile of a 6 MV clinical photon beam. The results reported show that these dosimeters are promising materials for ESR dosimetric applications in radiation therapy.