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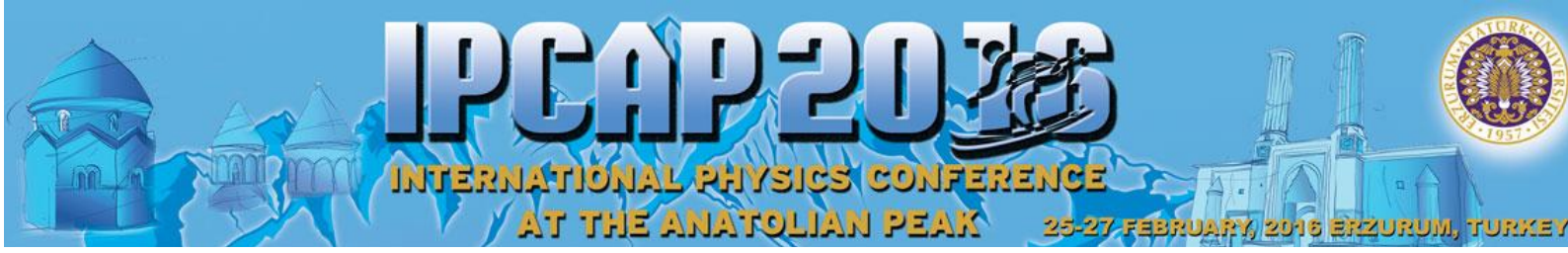
INTERNATIONAL PHYSICS CONFERENCE
AT THE ANATOLIAN PEAK

ABSTRACT *book*



25-27 FEBRUARY,
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25- 27 February, 2016
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Determination of Linear Attenuation Coefficients of Some Dosimetric Materials

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Thermoluminescent dosimeters (TLDs) and gel dosimeters are different types of passive radiation measurement materials. They have different operating principles. But the common critical point of these materials are their tissue equivalence since they are used to measure radiation dose distribution on human tissue and organs or inside phantoms. In this study we tried to determine linear attenuation coefficients of these materials at different gamma ray energies with an energy dispersive x-ray fluorescence system ²⁴¹Am (59.5 keV) gamma source with a Si(Li) detector and multi-channel analyzer with software (Ortec, SLP140P, USA) with linear geometry. We compared the results with XCOM (NIST, USA) database.

Keywords: TLDs, Gel dosimeters, Linear Attenuation Coefficients, Gamma-Rays, Tissue Equivalence