

Determination of a TASTRACK plastic track detector to neutrons from the Pu-Be source

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The solid-state nuclear track detectors (SSNTDs) are widely used in a variety of nuclear physics experiments and radiation protection. The paper presents the first results of the newly acquired TASLIMAGE neutron dosimetry system at the Slovak University of Technology in Bratislava. A comparison of experimental and calculated responses of a TASTRACK plastic nuclear track detector to neutron spectra of Pu-Be source is presented. The doses determined by the TASLIMAGE system are compared to the ones measured by the NuDET-ENE neutron detector based on the use of a ZnS(Ag) scintillator covered with a thin film of ${}^6\text{LiF}$ thermal neutron converter accommodated inside the HDPE moderator. The first results are concluded and further research needs are identified.

Přihlásit do soutěže

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