



Contribution ID: 399

Type: Oral

new experimental research stand svicka neutron field analysis using neutron activation detector technique

Knowledge of neutron energy spectra is very important because neutrons with various energies have a different material impact or a biological tissue impact. This paper presents basic results of the neutron flux distribution inside the new experimental research stand SVICKA which is located at Brno University of Technology in Brno, Czech Republic. The goal of the experiment was to obtain basic information about the neutron flux distribution in vertical irradiation channels at exact positions. The second reason of the measurement was to carry out an investigation of the sandwich biological shielding quality that protects staff against radiation effects. The set of Indium and Lanthanum oxide detectors and neutron activation detector technique were used to neutron flux distribution investigation. The results of the measurement provide basic information about the neutron flux distribution inside all irradiation channels and no damage or cracks are present in the experimental research stand biological shielding.

Primary author: Mr VARMUZA, Jan (Brno University of Technology)

Presenter: Mr VARMUZA, Jan (Brno University of Technology)

Track Classification: Applied Research