CROSS SECTIONS OF (n, p) NUCLEAR REACTIONS ON ZIRCONIUM ISOTOPES

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Cross sections of nuclear reactions $^{92}Zr(n, p)^{92}Y$ and $^{94}Zr(n, p)^{94}Y$ were measured in the neutron energy range 13,56 ÷ 14,53 MeV. Measurements have been carried out by neutron activation method. The samples in the form of foils of natural zirconium have been irradiated by DT- neutrons. Instrumental gamma-spectra of activation products have been measured by spectrometer with HPGe detector. The corrections on the instability of neutron flux, real geometry of the experiment, the effect of true coincidence summing of gamma-quanta during activation products spectra measurements and on effect of absorption gamma-quanta in the sample were considered. The average neutron energy has been determined experimentally by Zr/Nb method.