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**CROSS SECTIONS OF (n, n' α) NUCLEAR REACTION ON REAR EARTH ELEMENTS
AT 14.7 MeV NEUTRON ENERGY**

Cross sections of nuclear reactions $^{159}\text{Tb}(n, n'\alpha)^{155}\text{Eu}$, $^{165}\text{Ho}(n, n'\alpha)^{161}\text{Tb}$, $^{169}\text{Tm}(n, n'\alpha)^{165}\text{Ho}$ and $^{176}\text{Yb}(n, n'\alpha)^{172}\text{Er}$ for incident neutron energy region (8 - 20) MeV are presented. Comparison of the nuclear cross sections data with available experimental information, evaluated nuclear data and theoretical calculation results with the variation of different parameters of the theoretical models was performed. Theoretical calculations were executed with TALYS-1.2 code.

Keywords: cross section, activation technique, mechanism of nuclear reactions.