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**MEASUREMENT AND THEORETICAL ANALYSIS OF CROSS SECTIONS NUCLEAR REACTION
(n, p), (n, α), (n, 2n) ON ISOTOPES OF DYSPROSIUM, ERBIUM AND YTTERBIUM**

Cross section of the nuclear reactions (n, p), (n, α), (n, 2n) were measured on isotopes of dysprosium, erbium and ytterbium at the neutron energies 14.6 ± 0.2 MeV. They were compared with available experimental data, evaluated nuclear data and the results of theoretical calculations. Cross sections were measured within neutron-activation method. Theoretical calculations of the nuclear cross sections reaction were performed with the use of EMPIRE 3.0 and TALYS 1.2 codes as well as by empirical and semi-empirical systematics.

Keywords: nuclear reaction cross section, neutron-activation analysis, the nuclear reaction mechanisms.