**N. R. Dzysiuk, A. O. Kadenko, I. M. Kadenko, G. I. Primenko**

# NUCLEAR (n, x) REACTIONS CROSS SECTIONS ON DYSPROSIUM AND ERBIUM ISOTOPES

Cross sections of nuclear reactions $^{162,163}$Dy(n, x)$^{162}$Tb, $^{163,164}$Dy(n, x)$^{163}$Tb, $^{156}$Dy(n, 2n)$^{155}$Dy, $^{158}$Dy(n, 2n)$^{157(m+g)}$Dy, $^{166,167}$Er(n, x)$^{166g}$Ho, $^{170}$Er(n, p)$^{170g}$Ho were measured and presented for incident neutron energy (14.6 ± 0.2) MeV. The measurements were undertaken with neutron-activation technique. Samples of natural composition of above mentioned elements were irradiated with (d-t) neutrons. Instrumental gamma-ray spectra of induced activities were measured using HPGe detectors. The main sources of uncertainties for cross section values were considered and taken into account. Measured cross section for $^{162}$Er(n, p)$^{162(m+g)}$Ho nuclear reaction is considered as original data. Theoretical calculations of excitation functions for all reactions in specified energy range were performed with TALYS-1.2 code.

*Keywords*: cross section, activation technique, excitation function.