

CROSS-SECTIONS OF  $^{151}\text{Eu}(\pi, p)^{152}\text{mEu}$  ( $T_{1/2} = 9.3$  h) REACTION FOR  $E_n = 0.5 - 2.2$  MeV. Activation cross-sections for  $^{151}\text{Eu}(\pi, \gamma)^{152}\text{mEu}$  ( $T_{1/2} = 9.3$  h) reaction have been measured at 12 neutron energies between 0.5 and 2.2 MeV. Neutrons were produced by means of  $^3\text{H}(p, n)^3\text{He}$  reaction, using Van-de-Graaff accelerator. The measurements were made relative reactions  $^{115}\text{In}(n, n')^{115}\text{mIn}$  and  $^{197}\text{Au}(n, \gamma)^{198}\text{Au}$ .

THE ANGULAR DISTRIBUTION OF  $^{234}\text{U}$  AND  $^{238}\text{U}$  PHOTOFISSION FRAGMENTS NEAR THE FISSION THRESHOLD. The measurements of the angular distributions of fission fragments in the photo-fission of  $^{234}\text{U}$  and  $^{238}\text{U}$  has been performed between 5.5 and 6.5 MeV.

As gamma source, the bremsstrahlung from a microtron was used. For detection of the fission fragments was used the glass detector which was scanning by the optical microscope. The presented data are compared to the results of earlier experiments. Some discrepancies were discussed.

THE NEUTRON CAPTURE CROSS-SECTIONS OF FAST NEUTRON FOR DYSPROSIUM

ISOTOPES. The results of the measuring of the neutron capture cross-section for the isotopes  $^{160}, ^{161}, ^{162}, ^{163}, ^{164}\text{Dy}$  and natural dysprosium in the energy region from 20 to 450 keV. The measurements were carried out at the time-of-flight spectrometer of neutron on the pulsed Van-de-Graaff accelerator EG-1 HEI.

COMPUTERIZED NUCLEAR DATA BANK FOR THE GENERALIZED COMPARATOR METHOD OF THE ACTIVATION ANALYSIS. A computerized nuclear data bank was created to be used for the environment objects neutron activation analysis by the generalized comparator method. The recommended nuclear data values were accepted on the basis evaluations performed up to 1987 both in this and other countries. A unified computational format was chosen to represent the nuclear data in the computer readable form, the format having been elaborated and used for various applications in. CJD.

ON THE EFFECT OF  $\nu(E)$  ENERGY DEPENDENCE AT  $E < 1$  eV ON THE GROUP CONSTANTS OF Pu-239 IN THE LOWEST GROUPS. The effect is estimated of the energy dependence of the average number of fission prompt neutrons on energy for Pu-239 on the group cross-sections functionals in BNAB-26 system. This effect is shown to result in a significant dependence of  $\nu(E)$   $\{\bar{\nu}(E)\}$  averaged over maxwellian neutron spectrum on the neutron gas temperature  $T$ .  $\nu(E)$   $\{\bar{\nu}(E)\}$  decreases by approximately 1% when  $T$  increases from 300K to 2000K. Taking this dependence into account may improve the predictability of the characteristics of the plutonium-fueled systems.

ON THE IDENTIFICATION OF HIGH SPIN STATES IN  $^{235}\text{U}$ . The results of the study on high spin  $^{235}\text{U}$  states are analyzed. A new way of assignment of gamma-quanta observed is proposed. Such a placement deals with low spin part of the level scheme only without introduction and high spin level.

GAMMA-RAYS FROM THE  $^{106}\text{Cd}(n, n'\gamma)$ -REACTION. Using the reactor fast neutron beam, the gamma-spectrum, angular distribution and linear polarization of gamma-quanta from the  $^{106}\text{Cd}(n, n'\gamma)$ -reaction have been measured. A scheme of  $^{106}\text{Cd}$  levels and  $\gamma$ -transitions has been constructed, the  $J^\pi$  Characteristics of the levels and multi-pole mixtures  $\delta$  for  $\gamma$ -transitions between the levels with the known  $J^\pi$  have been determined.

GAMMA-RADIATION FROM  $^{186}\text{W}(n, n'\gamma)$  REACTION. Gamma-spectrum, angular distributions and linear polarization are measured in  $^{186}\text{W}(n, n'\gamma)$  reaction with reactor fast neutrons, level scheme is constructed. Multi-pole mixtures of gamma-transitions are determined.

TESTING OF  $^{235}\text{U}$ ,  $^{238}\text{U}$  AND  $^{239}\text{Pu}$ . CROSS-SECTION RESONANCE STRUCTURE DATA IN THE UNRESOLVED REGION ON TRANSMISSION EXPERIMENTS. Subgroup parameters of  $^{235}\text{U}$ ,  $^{238}\text{U}$  and  $^{239}\text{Pu}$  in unresolved resonance region used in multi-group constant system MULTIK are tested on transmission experiments. Calculated and experimental data are found uncontradictory. Necessity of analysis transmission experimental data as well as information from resolved resonance region for evaluation cross-section resonance structure in unresolved region are emphasized.