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INTEGRAL CAPTURE CROSS-SECTIONS IN THERMAL AND RESONANCE ENERGY REGIONS FOR ^{230}Th , $^{231-233}\text{Pa}$, ^{236}U , ^{237}Np . The results of experimentally determination thermal cross-sections and resonance integral values are presented. The measurements were carried out by the activation method using high-resolution semiconductor detectors.

NEUTRON INELASTIC SCATTERING BY CHROMIUM AND ITS INFLUENCE ON THE CALCULATED CHARACTERISTICS OF THE REACTOR WITH DISSOCIATING COOLANT. The last experimental studies of inelastic scattering cross-sections in natural chromium taking into account by ENDF/B-Y and CND-2 evaluations, point out the necessity of decreasing σ^i near threshold. Matrixes of inter-group transitions caused by inelastic scattering in these evaluations are obtained. Influence of re-evaluated σ^i on the calculated characteristics of the reactor with dissociating coolant is discussed.

ESTIMATION OF THE CADMIUM NUCLEAR DATA BY INTEGRAL EXPERIMENT AT KBR-9 ASSEMBLE. The difference between calculational and experimental values of scattering materials reactivity worths was discovered during experiments at RRR/SEG-IV facility (CINR, GDR), which contents Cd in its composition. To verify the reasons of this discrepancies the reactivity worths of several Cd samples of different sizes were measured at KBR-9 facility. The KBR-9 had no Cd in its composition. The comparison of calculational and experimental results indicated the underestimation of resonance self-shielding effect of Cd capture cross-sections in the BNAB-78 and KEDAK-3 Nuclear Data Libraries.

ADOPTING OF THE ES-1033 COMPUTER THE SERVICE PROGRAMS FOR OPERATION WITH THE ENDF/B FORMAT EVALUATED DATA LIBRARIES. In the article the main possibilities of service programs for evaluated neutron data in ENDF/B format, adopting in CJD on ES-1033 computer are described.

ANALYSIS OF ERRORS IN REACTIVITY CARRIED OUT BY THE KINETICS EQUATION INVERSED SOLUTION METHOD DUE TO DELAYED NEUTRON PARAMETER UNCERTAINTIES. The reactivity errors have been determined in a numerical experiment with consideration for the delayed neutron parameter correlations for the ^{235}U nuclide for reactivity measurements by the kinetics equation inversed solution method. The kinetics model is a point one and the reactivity perturbation is a prompt one.

THE CALCULATION OF ANISOTROPIC TRANSITIONS WITHOUT POLYNOMIAL EXPANSION. The evaluation of the effect of the neutron angular distribution shape and averaging spectrum on the anisotropic transition matrix element values is carried out. The direct integration method of scattering function is used.

EFFECTIVE THRESHOLD CROSS-SECTIONS FOR EXPERIMENTAL DETERMINATION

OF NEUTRON FLUX DENSITY IN FUSION REACTOR BLANKETS. The cross-sections of 133 threshold reactions are evaluated for the kinds CTR - blanket. The neutron flux density in a fusion reactor blankets may be determined with the minimal relative errors if the effective threshold cross-sections method was used together measured saturation activities per nuclei.

INVESTIGATION OF NEUTRON GAS AND EMITTER TEMPERATURE EFFECT UPON EMISSION NEUTRON DETECTOR SENSITIVITY VARIATION. the influence of variation of the emission neutron detector temperature and of the neutron gas temperature upon detector sensitivity to neutron radiation has been considered. Temperature effect analysis is based upon investigation of Westcott cross-section variation. The temperature variation is shown to have various effect upon sensitivity variation of detectors with Ag, Rh, Hf, In, Gd emitters.