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INDC INTERNATIONAL NUCLEAR DATA COMMITTEE

PROGRESS REPORT FOR POLAND FOR THE PERIOD 1989/90

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Subject: Progress Report for the Period 1989/90.

The activities in the field of nuclear data measurements, evaluations and applications, in Poland, were limited to some experimental and calculational studies of the (n,p) reactions on medium-mass targets, and to the adjacent application of some data requested from the IAEA-NDS.

The measurements of excitation curves for the ^{64,66,67,68}Zn(n,p) and the ^{96,99,101,102,104}Ru(n,p) reactions have been measured in the bombarding neutron energy range from 13.0 MeV to 15.5 MeV. Continuation of the measurements in the energy range from 15.5 MeV to 16.6 MeV are planned in the nearest few months. These measurements are a continuation of the measurements initiated by the CRP on "measurements and evaluation of 14 MeV neutron nuclear data" coordinated by the IAEA-NDS. In paralell works are underway on a model for calculation of the neutron cross sections based on the quantal theory of FKK. This work includes completion of a computer code, which will allow to calculate compound nucleus, MSC, MSD and collective neutron cross sections for neutron nuclear data evaluation.

In 1989 and 1990 the results of previous analyses of the ^{74,76,77,78}Se(n,p), ^{90,91,92,94}Zr(n,p) and ^{105,106,108}Pd(n,p) reactions have been published in Z.Phys.,A334(1989)285, in Nucl.Phys.,A510(1990)93 and in Acta Physica Hungarica(to be published). For the purpose of these analyses we requested from the IAEA-NDS the EXFOR content for neutron induced reactions on Se, Ge, Zr and Pd isotopes.