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GRAPHICAL REPRESENTATION OF SOME EVALUATED
NEUTRON CROSS-SECTIONS FROM INDL/A-83

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ABSTRACT

The graphical representations of the evaluated neutron cross section from INDL/A-83 which were in the ENDF/B-V format are presented.

The total, elastic, inelastic, capture, and fission cross sections are given for fifteen nuclides in the range 10^{-5} to 15 Mev or 20 Mev depending on the data given for the evaluation.

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1. INTRODUCTION

The IAEA Nuclear Data Library for Evaluated Neutron Reaction Data of Actinides, version 83 (INDL/A-83) /1/ contains evaluations in several formats: KEDAK, UKNDL, ENDF/B-IV and ENDF/B-V format.

The graphical representations compiled in this report correspond to the complete evaluations which were presented in ENDF/B-V format. Table 1 shows the MAT number and other data which identify these evaluations.

The plotting for the total, elastic, inelastic, capture and fission cross sections were made in a log-log scale using the program PPFT /2/ in a CDC Cyber 170/750 Computer.

The main purpose of this compilation is to give a whole view for each evaluation. Therefore, the reader who would want to know more details should refer to /1/.

Table 1: Data identification for the graphical representations.

NUCLIDE	MAT NUMBER	YEAR OF EVALUATION	LABORATORY
^{232}Th	9090	1980	Institute of Nuclear Power Reactors, Pitesti, Romania
^{233}Pa	9193	1980	Institute of Nuclear Power Reactors, Pitesti, Romania
^{237}Np	9337	1981	Cadarache, France
^{238}Pu	9438	1982	Cadarache, France
^{239}Pu	9421	1981	ITM, Minsk, USSR
^{240}Pu	9431	1981	ITM, Minsk, USSR
^{241}Pu	9440	1981	ITM, Minsk, USSR
^{242}Pu	9450	1981	ITM, Minsk, USSR
^{241}Am	9541	1979	Cadarache, France
^{243}Am	9530	1982	Harwell, England
^{242}Cm	9662	1982	CNEN, Bologna, Italy
^{243}Cm	9663	1981	CNEN, Bologna, Italy
^{245}Cm	9665	1981	CNEN, Bologna, Italy
^{246}Cm	9666	1982	CNEN, Bologna, Italy
^{247}Cm	9647	1980	CNEN, Bologna, Italy

REFERENCES

- [1] INDL/A-83, IAEA-NDS-12, Rev 7 IAEA Nuclear Data Library for Evaluated Neutron Reaction Data of Actinides.
- [2] IEAv/MN-002/86 Programa para Plotagem de Funções Tabeladas (PPFT).



























































