

THE IMPLEMENTATION OF FEDGROUP TO CYBER 72 COMPUTER AND
TESTING OF THE PROGRAM

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The program system FEDGROUP (¹) is able to calculate group averaged constants for neutron data calculations from various evaluated data files disseminated by IAEA. The averaging can be made in arbitrary group structure using arbitrary spectrum. The data can be given point-wise or by resolved and unresolved resonance parameters and are processed to infinite diluted and screened group averaged cross-sections. Elastic and inelastic scattering matrices can also be calculated.

The implementation of FEDGROUP has taken a considerable time because some programming errors have been detected. The performance of some subroutines was essentially improved and also the segment structure for the CYBER machine was incorporated in the program. Numerous test calculations with data taken from KEDAK, UKNDL, LENDL, and ENDF/B files have been performed.

The CYBER version with appropriate test calculations will be sent to NEA-CPL and to RSIC. FEDGROUP will be applied to the calculation of multigroup constants for several PWR materials using the neutron spectra of the "KRŠKO" nuclear power station.

Reference

1. P.Vertes, INDC(HUN)-13/L, June 1976