

Abstract Submitted
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Calculation of Maxwellian-averaged cross sections and their uncertainties using ENDF/B-VII.1 evaluated neutron library BORIS PRITYCHENKO, National Nuclear Data Center, Brookhaven National Laboratory — Present contribution represents a first application of ENDF/B-VII.1 neutron library for calculation of Maxwellian-averaged cross sections and astrophysical reaction rates. Recent improvements in neutron cross section evaluations and more extensive utilization of covariance files, by the CSEWG collaboration, allowed us to perform complete calculations and provide additional insights on all currently available neutron-induced reaction data. Nuclear reaction calculations using ENDF libraries and current Java technologies will be discussed and new results will be presented. This work was sponsored by the Office of Nuclear Physics, Office of Science of the U.S. Department of Energy, under Contract No. DE-AC02-98CH10886 with Brookhaven Science Associates, LLC.

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