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**Maxwellian-averaged cross sections and astrophysical reaction rates from ENDF/B-VII.0, JEFF-3.1, JENDL-3.3 and ENDF/B-VI.8 evaluated nuclear reaction data libraries** BORIS PRITYCHENKO, ALEJANDRO A. SONZOGNI, SAID F. MUGHABGHAB, National Nuclear Data Center, Brookhaven National Laboratory — Maxwellian-averaged cross sections and astrophysical reaction rates were calculated for  $(n,\gamma)$ ,  $(n,p)$ ,  $(n,f)$ ,  $(n,\alpha)$ ,  $(n,2n)$  and  $(n,t+2\alpha)$  reactions from ENDF/B-VII.0, JEFF-3.1, JENDL-3.3 and ENDF/B-VI.8 evaluated nuclear reaction data libraries. Four major nuclear reaction libraries were processed under the same conditions for temperatures (kT) range from 1 keV to 1 MeV. Present results provide a set of independent benchmarks and complimentary nuclear data sets for the KADONIS nuclear astrophysics database that is currently under development. Current calculation of s-process nucleosynthesis nuclei is compared with previous data sets. Possible physics implications and differences between data sets are discussed.

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