The JINA Reaclib Database and Nuclear Astrophysics Applications. RICHARD CYBURT, HENDRIK SCHATZ, KARL SMITH, SCOTT WARREN, MSU/NSCL — Nuclear astrophysics is a rich and vital field of study, using experimental/theoretical input for calculations of processes that create the elements we are made from. In order to facilitate this research further, the Joint Institute for Nuclear Astrophysics (JINA) has created a public, web-based database for nuclear reaction rates. Data are stored in the standard Reaclib format and are continually updated as new data or new compilations become available. A versioning system has been adopted to keep track of new rates. Recommended rate libraries representing "snap shots" of the live database are stored for users wanting a fixed/unchanging set of rates. The database and its use will be presented with emphasis on its role in nuclear astrophysics calculations. For more information, see the JINA Reaclib website: http://www.nscl.msu.edu/~nero/db.

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