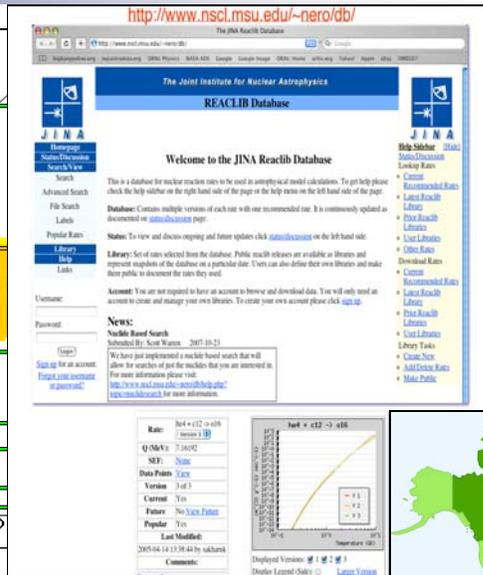
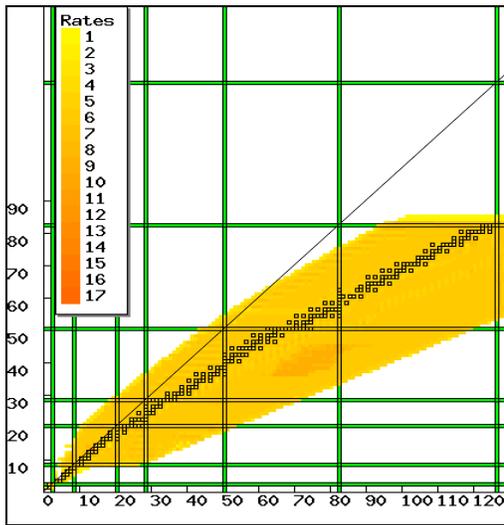
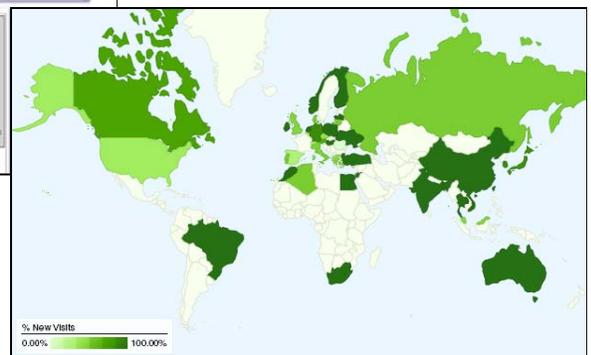


The JINA REACLIB Project



The figures to the left show the JINA REACLIB front page, the rate details page for one reaction and a nuclide chart search result for forward reactions in the database.

The figure below shows the percentage of new visits to the website from particular countries.



One of JINA's main goals is to advance nuclear astrophysics by creating and enhancing the connections between nuclear physics and astrophysics. The JINA REACLIB project is a central element in this effort. It enables astrophysicists to access and use the latest evaluated nuclear reaction data for use in their models, ensuring advances on the nuclear physics side translate into astrophysical discoveries. It facilitates astrophysical model comparisons as the nuclear physics used in a particular calculation can be conveniently documented. It also serves as a resource for nuclear physicists to view the current state of the nuclear physics used in astrophysical model calculations.

The database is derived from the original REACLIB by F. Thielemann and currently contains ~74500 thermonuclear reaction rates and ~3950 weak decay rates. The database serves as a community resource and is publicly available at our online interface. It is continuously updated in a fully transparent and documented process minimizing the time it takes newly published rates to be implemented. For this we take advantage of the JINA Virtual Journal, which provides a weekly list of articles on new nuclear data published in the literature. A committee decides on the further treatment of the data. Approximately, every six months we create a "snap shot" library, which keeps all recent changes fixed and separate from the continued updating of the live database. Besides new rates, we periodically add new features to the interface, most recently the Nuclide Chart search display and Popular Rates list.

Already the project has triggered the reformation of a broader nuclear astrophysics data community, which is involved in the evaluation process. The project is embedded in an international collaboration with the European network CARINA and the KADoNIS project, as well as with the US effort at nucastrodata.org. JINA organizes annual workshops to discuss and organize the dissemination and exchange of nuclear astrophysics data, and to coordinate efforts. We envision the integration of the JINA REACLIB database with other community tools, for example the nucastrodata.org project, in the near future.

Links:

- [JINA REACLIB Database](#)
- [REACLIB Status Page](#)
- [REACLIB Search Page](#)
- [REACLIB Nuclide Chart](#)
- [REACLIB Popular Rates](#)

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Joint Efforts:

- [JINA/CARINA collaboration](#)
- [Nucastrodata.org](#)
- [KADoNIS](#)
- [Nucastrodata.org](#)

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