

# AtomDB: Atomic Data for X-ray Astrophysics

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**Abstract.** The AtomDB project collects atomic data from a wide range of theoretical and experimental sources, converts them into useful formats for X-ray astronomers, and provides tight integration with spectral fitting codes to enable easy use of our data by observers in the X-ray band and the wider community.

The project's focus is on collisionally ionized, as opposed to photo-ionized, plasmas. In the latest version we have focused in particular on processes relevant to plasmas which are not in ionization equilibrium, such as shocked material in a supernova remnant, or in coronal flares. Enabling observers to model these features well requires not just a range of new data, such as inner shell excitation and state-selective recombination, but also reorganization of the database and construction of a range of new models for existing spectral fitting codes to enable this expanded data set to be used in without become prohibitively slow.

We present an outline of the changes we have made, combined with examples of the effect of the new data and models on interpretation of spectra from several sources.