

# NIST Atomic and Molecular Databases on the World Wide Web

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**Abstract.** At the National Institute of Standards and Technology (NIST), the Information Office coordinates and facilitates the electronic dissemination of information for the Physical Measurement Laboratory (PML). The Information Office is responsible for PML World Wide Web (WWW) pages at <http://physics.nist.gov> and the Information Office is engaged with PML Divisions and the NIST Standard Reference Data Program in developing physical reference databases for WWW dissemination. A list of available databases can be found at <http://physics.nist.gov/data>.

In collaboration with the Atomic Physics Division the following databases are available online:

- Atomic Spectra Database
- Fundamental Physical Constants Database
- Electron-Impact Ionization Cross Section Database
- Spectrum of Platinum Lamp for Ultraviolet Spectrograph Calibrations
- Ground Levels and Ionization Energies for the Neutral Atoms
- Bibliographic Databases are available for Atomic Transition Probabilities, Atomic Spectral Line Broadening and Shifts, Atomic Energy Levels and Spectra, and Fundamental Constants.

An Elemental Data Index provides access to the holdings of online Physical Reference Data organized by element. The Elemental Data Index is designed to simplify the process of retrieving online scientific data for a specific element. Additional databases of interest include the Atomic Weights and Isotopic Compositions Database and a variety of molecular spectroscopic databases.

NIST's Information Office has been involved in developing an XML (eXtensible Markup Language) schema, called UnitsML, for encoding measurement units in XML. Adoption of this schema will allow for the unambiguous exchange of numerical data over the World Wide Web.