Sci-Tech News

Volume 62 | Issue 4 Article 11

December 2008

Beyond the Chemistry Web

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The periodic table of elements is arguably the most significant intellectual achievement in chemistry. It remains an outstanding way to organize chemical information and is invaluable for students and practitioners alike. While it is not difficult to find a periodic table on the Internet, it is nice to show patrons ones that are special.

Science writer Theodore Gray has created an outstanding collection of over 1,400 pictures of the elements in **The Periodic Table of Elements**. In addition to pictures for each element, this labor of love also offers stories and facts about the elements. The data is from Mathematica's Element Data function from Wolfram Research. Once you have clicked on an element, you get annotated pictures, a few basic properties, and a link to full technical data. Make sure to look at the full technical data link and take time to figure out all that it has to offer. Clicking on one of the eighty plus properties listed on the right hand column allows you to numerically (or visually) compare the elements. This is done with scatter plots, sorted scatter plots, 3-D periodic table, color-coded periodic table, balls, and crossed lines. This is my favorite periodic table.
http://www.periodictable.com/

The **Dynamic Periodic Table** also helps visualize the properties of the elements. As a former research chemist, I found this site delightful. Parts of this website can be thought of as a table of data for a given property, but presented within a periodic table. For some properties, the "slider" shows which elements have values above or below a given value. This site includes fourteen properties, orbitals, isotopes, and quick links to the corresponding Wikipedia entry. Check out the link at the bottom of the page labeled "show" which automatically demonstrates the site.
http://www.dayah.com/periodic/

WebElements of the Periodic Table is an established site that has recently improved site navigation. Tabbed browsing helps zero in on twenty-one categories which range from broad subjects (i.e., history, biology, geology, etc.) to specific properties (i.e., bond energies, allotropes, etc.). This site includes compounds of the elements, unlike the two sites listed above. There are ads, but they are easy to ignore. Data has been pulled from standard reference sources.
http://www.webelements.com/

The American Chemical Society (ACS) provides a basic and easy-to-use **Periodic Table** – only elements and a few properties. The Royal Society of Chemistry **Periodic Table** gives more property data, covers compounds, and is visually striking but it downloads more slowly. The major value of these sites is that they can serve as a conduit to other ACS and RSC resources.
http://acswebcontent.acs.org/periodic/tools/PT.html
http://www.rsc.org/chemsoc/visualelements/PAGES/pertable_fla.htm

The Periodical Table of Videos has become a hit on YouTube. Filmed at the University of Nottingham and starring professor Martyn Poliakoff, each element has a three to five minute video that combines informal lecture and lab demonstrations. It is nice to see chemistry portrayed in such a lively format.
http://www.periodicvideos.com/

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