

December 2008

Beyond the Chemistry Web

Bob Buchanan

Follow this and additional works at: <https://jdc.jefferson.edu/scitechnews>

 Part of the [Physical Sciences and Mathematics Commons](#)

[Let us know how access to this document benefits you](#)

Recommended Citation

Buchanan, Bob (2008) "Beyond the Chemistry Web," *Sci-Tech News*: Vol. 62: Iss. 4, Article 11.
Available at: <https://jdc.jefferson.edu/scitechnews/vol62/iss4/11>

This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's [Center for Teaching and Learning \(CTL\)](#). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in Sci-Tech News by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: JeffersonDigitalCommons@jefferson.edu.

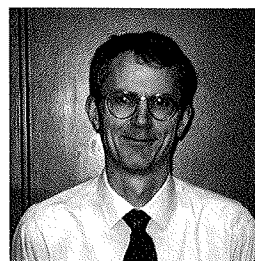
Beyond the Chemistry Web...

Bob Buchanan, Chemistry Librarian, Auburn University

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/>



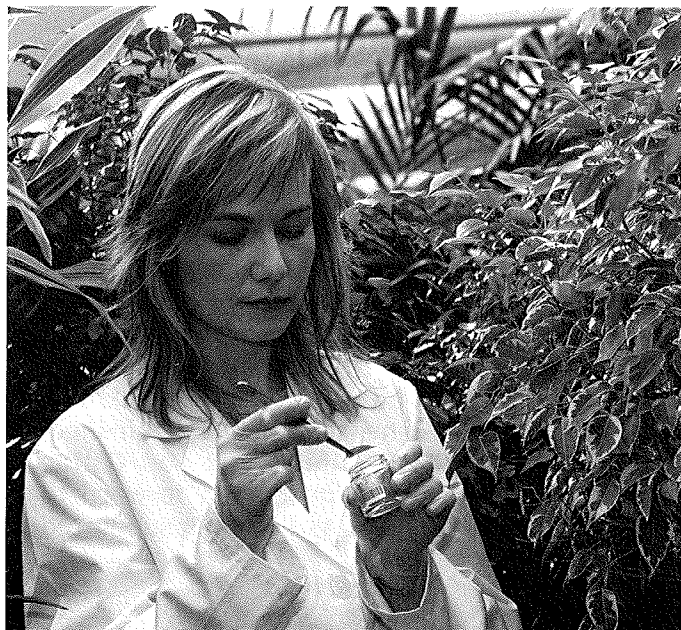
WebElements of the Periodic Table is an established site that has recently improved site navigation. Tabbed browsing helps zero in on twenty-one categories which range from broad subjects (i.e., history, biology, geology, etc.) to specific properties (i.e., bond energies, allotropes, etc.). This site 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>

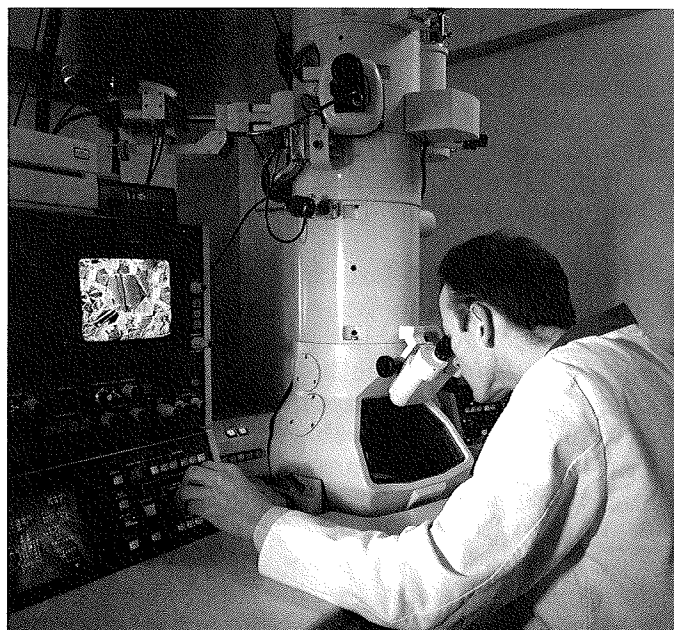
The Periodical Table of Videos has become a hit on YouTube. Filmed at the University of Nottingham and starring professor Martyn Poliakoff, each element has a three to five minute video that combines informal lecture and lab demonstrations. It is nice to see chemistry portrayed in such a lively format.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

❖

nature.com
is life science



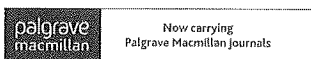
nature.com
is physical science



It's all in your **nature.com**

NPG offers the highest quality reviews journals across science and medicine. The *Nature Reviews* journals provide an unparalleled source of authoritative, independent information and opinion. All of the *Nature Reviews* journals are leaders in their disciplines:

- *Nature Reviews Cancer*
- *Nature Reviews Drug Discovery*
- *Nature Reviews Genetics*
- *Nature Reviews Immunology*
- *Nature Reviews Microbiology*
- *Nature Reviews Molecular Cell Biology*
- *Nature Reviews Neuroscience*



T: +1 800 221 2123 | **E:** institutions@natureny.com | **W:** www.nature.com/libraries

nature.com
The world's best science and medicine on your desktop

nature publishing group 