

Periodic 2.0 for Macintosh

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The Periodic 2.0 software is a fast, versatile, and easy-to-use program with several nice features. The program includes 27 different data types including phase-change enthalpies and temperatures, various radii, volume, density, electric and thermal conductivities, ionization potentials, electronegativity, and some historical information. Specific information on individual elements can be requested, or graphs of numeric data can be generated for groups, periods, or all elements. All data for a single element can also be obtained but must be navigated starting from hydrogen by selecting arrows that move up and down groups or right and left along periods. The simplicity of the program makes it a nice tool to include in an undergraduate computer lab serving chemistry students.

Some graphs generated by Periodic 2.0 are labeled somewhat ambiguously. For example, a graph of ionic radii is labeled by atomic symbol. Charges on the ions are not evident either on the graph or in the periodic table.

Periodic 2.0 occupies only 479 kb on disk and needs less than 1 Mb RAM. The program can be obtained as a self-extracting archive that installs quickly and painlessly. The program was evaluated on a Powerbook 520C and a Power Macintosh 8500/120 and performed well on both systems.

Periodic 2.0 is not as comprehensive as WWW-based WebElements 2.0 (<http://www.shef.ac.uk/~chem/web-elements/>). Periodic provides access to 27 types of elemental information whereas WebElements listed over 100 types of information. For example, Periodic includes several types of atomic abundance information (crustal, seawater, and cosmic), but WebElements adds many more (atmosphere, iron meteorites, stony meteorites, stream, sun, and various human organs such as blood and bone). The advantages offered by Periodic over WebElements are the speed, clarity of organization, and greater flexibility in graphing selected information by period and group as well as for all elements. The speed advantage is largely due to the overseas access to WebElements by the author, but the instant response of Periodic was preferred to the very slow response of WebElements.

In summary, Periodic 2.0 is a fast and convenient tool for basic periodic information on a fact-by-fact basis or in graphic form.

Periodic 2.0 and evaluation copies of Periodic 2.0 are available from Digital Chemistry Company, P.O. Box 332M, Manunda, Cairns 4870 Australia. Fax: +61 70 322 756 E-mail: digichem@internetnorth.com.au.

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