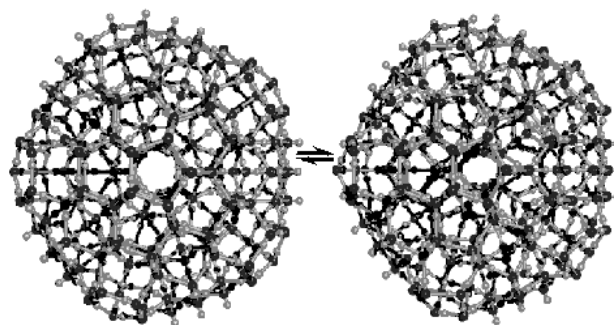
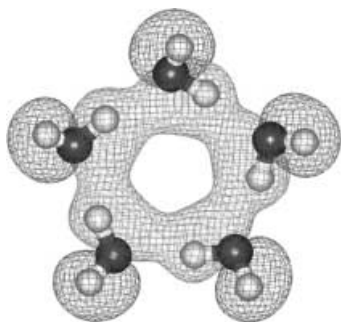




## Great Waterworld

Surfing in the internet without water is possible but only half the pleasure. One easily gets this impression on the web site "Water structure and behavior" by Martin Chaplin. It is a true repertory for all who endeavor to deal with the phenomenon of water from different perspectives. Water does not come along as a color-, odor-, and tasteless substance. This web site emphasizes that water has special properties which make life on earth possible.

A first glance on the simple entry page does not lead one to expect a marvelous water world behind it. The plain  $\text{H}_2\text{O}$  formula does not stimulate the appetite. But a click into the table of contents rewards you with lots of information and some beautiful pictures. The organization of this web site should not be compared to a well planned structure of a textbook. In fact, it reflects the genesis of this web site, which starts with Chaplin's own research interests in water. For this reason, the page first leads you to low- and high-density water structures, which permit Chaplin to explain some of the well known anomalies



of water. New insight and readers' suggestions gave rise to more chapters: hydration of sugars, amino acids and proteins, the Hofmeister series, or magic water clusters. The chapter on the homeopathic effect of water appears slightly esoteric. But, whether it is a placebo effect or not, it is very interesting to learn about the fight concerning water's importance for human health.

The bibliography (274 references at the moment) is substantial. A convincing appendix describes 37 anomalies of water, the exciting phase diagram comprising 13 different ice phases, and the significance of hydrogen bonding for the water network. The supplement is completed by a data collection which will be updated on the basis of readers' suggestions. Cross-references to the original literature are provided.

Guest books can be taken as an indicator for attractiveness. The interested as well as interesting visitors put everything on the test rig: The representation of the so-called Mpemba effect to answer the question: Why does hot water freeze faster than cold water? Truths and speculations about the second critical point of water are also thoroughly discussed.

Chaplin permanently updates his web site. He created an update history for those who do not want to search through the whole site again. Items added after the last visit of the web site can be found easily. People with little time can directly move to the page of newly created or revised pages.

The list of links guides the surfer to further sites. Chaplin carefully pays attention to not only satisfy the interest of pure science. He presents links to sites with a smart educational approach and also prefers well illustrated sites on his topic. All the links are available. The

surfer never ends up on a sandbank. Searching for further links I could do without the cursor being constantly

Suggest a web site or submit a review:  
[angewandte@wiley-vch.de](mailto:angewandte@wiley-vch.de)

traced by a hydrogen-bonded water pentamer, which does not improve the legibility of the page.

*Ralf Ludwig*  
 Universität Dortmund

For further information visit:  
<http://www.sbu.ac.uk/water/>  
 or contact  
[chaplimf@sbu.ac.uk](mailto:chaplimf@sbu.ac.uk)