



Companion Sites for Textbooks

For a long time there has been considerable effort to present textbook information in a more exciting way by exploiting additional tools. To give an example, some textbooks offer the opportunity to visualize threedimensional structures of molecules by means of stereo glasses. Since almost everybody has had access to a personal computer, some books are also accompanied by disks or CD-ROMs with additional teaching material, pictures, computer programs, or questionnaires. Only until recently has the internet become a tool to complement textbooks as well. In this review we want to present three notable examples to give an impression of how useful such web sites can be.

The reader of the introductory textbook "Biological Chemistry" by Buck-

berry and Teesdale has access to additional information on this topic via the corresponding web site.^[1,2] Besides the solutions to most self-test questions of the book, some additional teaching material and a few selected links are presented. The highest benefit for the user is offered by the presentation of a number of biomolecules. With the help of the freely downloadable Chime browser plugin structures can be manipulated in threedimensional space. A simple click on a mouse button allows one to choose among different ways of presentation (ball-stick, ribbons, etc.).

The web site of the textbook "Organic Chemistry" by F. A. Carey excels not only by its comprehensive summaries of the material covered in the book, but also by interactive self-tests in multiple-choice format.^[3,4] Whenever the users give a wrong answer, they will be directed to the corresponding chapter of the textbook, where they can catch up with the material. When they finally answer correctly, they are transferred to the next question.

The web site for Stryer's textbook of biochemistry (Figure 1) is distinguished by its professional design and depth of content.^[5,6] The site can be explored most efficiently by clicking on a browser bar which leads to the chapters of the book. There, the user can choose among online tutorials, which recapitulate the material of the book in a very understandable language, or answers to the questionnaire of the book. For each

chapter an extensive and commented list of WWW links is given, which turns out to be a real gold mine. To give an example, with a single mouse click the user can either consult databases maintained by big research institutes, or can work through animated lecture notes posted by ambitious university teachers. The breadth and quality of these link lists will allow the readers to immerse themselves deeper into the particular subject. Of course the Stryer web site also contains molecular structures from the PDB database and of small molecules, which can be manipulated with the Chime browser plugin. The well arranged web design deserves special praise, for it allows jumping between the chapters without having to annoyingly click the "back" button frequently.

Suggest a web site or submit a review:
angewandte@wiley-vch.de

The three examples mentioned above should give an idea of the various opportunities available to complement textbooks by web sites, which will also enable interactive learning. In contrast to CD-ROMs or disks the contents of such web sites will be robust against the ongoing change in hard- and software of the users' PCs. Contents can be updated continuously and with a mouse click the almost infinite information pool of the internet can be accessed. It is highly desirable that even more authors and publishers will take advantage of this option in the future, and will stay in touch with their readers after the purchase of the book and work together interactively.

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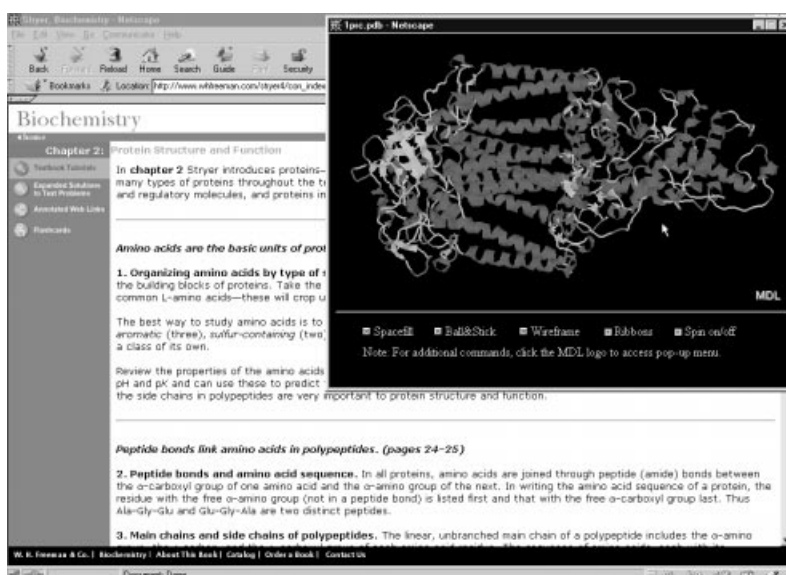


Figure 1. Text and interactive graphics for Stryer's biochemistry textbook.

- [1] L. Buckberry, P. Teesdale, *Essentials of Biological Chemistry*, John Wiley and Sons, Chichester, 2001.
- [2] <http://www.vuw.ac.nz/~teespitt/essentials/>
- [3] F. A. Carey, *Organic Chemistry*, McGraw-Hill, New York, 4th Edition, 2000.
- [4] <http://www.mhhe.com/physsci/chemistry/carey/>
- [5] L. Stryer, *Biochemistry*, W. H. Freeman and Co., New York, 4th Edition, 1995.
- [6] <http://www.whfreeman.com/stryer4/>