

Towards a Web-Based Interactive Environment for the Teaching of Crystallography

Gervais Chapuis, Nicolas Schoeni, *Laboratoire de cristallographie, École Polytechnique Fédérale, Lausanne, Switzerland.* E-mail: gervais.chapuis@epfl.ch

The possibilities offered by the Java language to run on any computer platform linked to Internet has motivated a large number of scientists in creating interactive applications or applets, aiming at a better understanding of scientific phenomena.

Crystallographers have been early adopters of the new possibilities offered by Internet with the aim to illustrate various concepts specific to crystallography. Presently, a quick search on the Internet reveals already the existence of numerous web sites containing interactive applets dedicated to crystallographic teaching.

The current generation of personal computers equipped with the most recent graphical hardware and software and the enormous local CPU capacity, allows to create very powerful applets which were not conceivable with previous generations.

Almost all the aspects of crystallographic teaching can be currently accessed on the web. Notions of point and space group symmetry, Fourier transform and diffraction theory, crystal structures and many others related topics are covered on various sites, freely accessible on the web.

However, for the student wishing to learn more about crystallography, the problem is to find the logical path among all the possible sites and applets providing the best sequence of subjects in order to acquire the expected knowledge.

We are currently setting up a web-based interactive environment on crystallography, building not only on our own developments but also on the vast amount of already existing tools available on Internet.

Keywords: teaching of crystallography, simulation software, web resources