

Roger Frost's Organic chemistry

CD-ROM – online – network

www.organic.rogerfrost.com.

*Obtainable from
ilearnchemistry, Russet House,
Foxton, CB22 6RT, telephone
01763 209109*

Roger Frost has long been associated with ICT, producing resources for the ASE and reviewing items for The Times Educational Supplement. **Roger Frost's Organic chemistry** is a result of his knowledge of what a good piece of ICT should do. This is an excellent teaching and learning aid, to be used in class demonstrations by the teacher or independently by the students themselves. The topics covered range from alkenes to protein synthesis to NMR and mass spectrometry. The premise of the software is that the teacher runs through the relevant section of the program before the lesson and then uses it in the lesson to illustrate what can be difficult concepts as and when it is needed. **Organic chemistry** is very easy to use – there is no going into one file and then loading another; with just a click of a button, you are there. The topics are laid out alphabetically with a keyword search option and for once, the help section is actually helpful! The list of topics available is clearly displayed on a 'home screen'. Upon selecting a topic you are immediately taken to a new page in which either a 2D and 3D structure is displayed or an animation appears (your PC needs to have Java and Chime installed to work). The software allows you

to look at 3D structures in a number of chemical models, i.e. ball and stick or space-filling, etc. It also allows you to manipulate the structure in order to form other compounds. The possibilities for showing structures make this worth getting for that feature alone! When using the animation you can go at your own pace. Cleverly, Roger has introduced a very simple method of encouraging the user to interact with the models and explanations. On each screen, there are sections in red. These work a bit like hyperlinks and thus should be easily understood by users. Clicking on the red moves the explanation on. Once you get used to it, this proves a powerful means of controlling what is revealed on screen and it is the key to teachers seamlessly integrating the software into their A-level chemistry lessons. Throughout the software, alongside the structural diagrams and animations, are text boxes which clearly and simply explain the concepts. In addition to this, there is also an option to open a file with material relevant only to a specific syllabus and even to a specific unit within that syllabus! Just in case the biologists are feeling left out, this software is also relevant to them, with material filtered into a separate file for biology courses. For the adventurous few out there, there is a step-by-step guide on how to make a personal file, with topics relevant to specific lessons. It is rare to find a piece of software that is so intuitive and user-friendly – other publishers please take note! The only minor niggle was the lack of a 'back' feature in some of the animations. With the high-level of control afforded to the user, it was a little awkward when I needed to

stress a previous point that I had to start the animation from the beginning. That said, the animations are only a minute or two long, so this is no real problem. The software represents excellent value for money.

Roger Frost's Organic chemistry is highly recommended and sets a challenge to all other ICT producers to create software that is as user- and teacher-friendly and yet integrates seamlessly into lessons.

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Roger Frost's Organic Chemistry

FINALIST - POST-16 EDUCATION



review

“Please tell us about organic chemistry ...

...about the content?

“Organic Chemistry facilitates explanation of homologous series, patterns in properties; molecule shape and polarity. It brings static mechanisms to life so that curly arrows actually mean something.”

Grammar school

...learning styles?

“...offers a range of presentations for introducing new ideas, practicing ideas, and quickly revising past concepts. Using different learning styles for individuals is often neglected at KS5 but this resource prevents that being the case. It is very useful when planning lessons because it automatically allows the use of visual learning in every lesson as its content is so broad.”

Comprehensive school

...about teaching and learning?

“It evidently accelerates teaching and learning, leaving the learners with a clear mental image to help them remember. You see their understanding grow. As a teacher it gives me great confidence that a complex idea has been clearly conveyed, and this is backed up by the enthusiastic response of learners.” *Sixth Form Centre*

...how it works?

“Doesn't put words in the teacher's mouth – it simply provides the images needed to aid explanations of concepts such as mechanisms, NMR, polarity and organic reactions.” *High school*

...about value for money?

“Too often we buy things which see usage once or twice a year but this software is being used all the time. Easily accessed, simple to use, single location making it easy to manage. Worth every penny.”

FE college

...how it helps your school?

“The unanimous view of all the chemistry teachers is that it is a fantastic piece of software and they use it wherever they can in their teaching. One stated 'it is the best chemistry software I have ever used — it is fantastic'. Our pupils are developing a far better understanding of organic chemistry as a direct result of its use.”

Comprehensive school

...about the effort required?

This is great to dip into and find just what you need. There was very little lag time between installing the package and getting underway with your first lesson. The format allows relevant tools to be rapidly accessed and controlled with minimal preparation. There's excellent guidance through each topic and from one topic to the next. It offers a very user-friendly, time-efficient way to make teaching presentations varied, engaging and effective.”

Comprehensive school

See the full organic chemistry review overleaf

reviews

ICT reviews

Roger Frost's Organic chemistry

The ASE Annual Conference was where I first came across Roger Frost's innovative new software for A-level chemistry – Roger Frost's Organic Chemistry, which is reviewed opposite. This is an example of a new wave of software, which has been developed to seamlessly integrate into teaching and learning, rather than something that takes over the whole lesson. It is an example of just the sort of software that schools need to invest in and also an example of what more publishers should be trying to provide for schools. (cont over)

ICT Editor

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The Association
for Science Education