

Newsletter: Using Computers in Chemical Education Spring 2003

ACS Division of Chemical Education :--Committee on Computers in Chemical Education

Chair : Don Rosenthal [Who we are and what we do.](#)

[About us](#)

[Submissions](#)

[Subscriptions!](#)

[Archives](#)

[Links](#)

[Home](#) Welcome! The Newsletter is FREE! To be notified when new issues are available, please [subscribe](#).

[Current Edition](#)

Editor

[Brian Pankuch](#)

Scott Van Bramer, takes care of organizing and monitoring our discussions on Newsletter articles, shares his expertise on using the Web. This article introduces the basics of tables, frames, images, javascript, and embedded items. The details will be different for your computer system, but there should be enough information here that you can at least talk to the technical experts at your school to get up and running. Good luck.

Contributing Editor

[Donald Rosenthal](#)

[Developing Web Pages for Teaching, Part III](#)

[- Advanced HTML Features](#)

Managing Editor

[Henry Derr](#)

Part II- Introduction

[Scott Van Bramer](#)

Department of Chemistry
Widener University
Chester, PA 19013

svanbram@science.widener.edu

Technical Editor

[Scott Van Bramer](#)

The first article in this series, Developing Web Pages for Teaching, Part I - Introduction, discussed the basics of what a web page can do and what might be useful. This second article talks about the details of how you actually create a web page and put it out there for the world to see. There are lots of different ways to do this, and there are lots more details than I can present here. This is simply a starting point to get you moving. It is based upon my experience teaching other faculty how to write web pages. Many of the details will be different for your computer system, but there should be enough information here that you can at least talk to the technical experts at your school to get up and running. Good luck.

[A Virtual Chemistry Lab](#)

[Roberto Ma. S. Gregorius](#)
Pan American University
Edinburg, Texas

Note to CONFCHEM participants: The virtuaLab you are about to see is part of my effort to develop a General Chemistry I lab manual that includes concept tutorials, report-writing tutorials (both in Flash), videos of techniques, and a printed/electronic lab manual that is less spoon-feeding than the average manual. There is a minimum of things you ought to be aware of as you go into the virtuaLab: oval high-lights are indicative of a "click-able" item, direction high-lights (4 arrows) indicate that the item can be "click-hold and dragged", and lastly, all items must first be dragged to the table top before it becomes useable in a virtual experiment. As for the rest, explore, enjoy, and let me know what you think.

[FrameMaker for Lab Manuals](#)

[Patty Feist](#)

Lab Coordinator, Organic Chemistry
Teaching Labs at CU Boulder.

Patty is back with a review of Adobe FrameMaker for large sized projects. The problems she relates with using large documents in the usual word processor strikes a cord with me and probably with most of us. Included are a number of suggestions that should make handling complex documents easier in any program.

"He showed me a few documents that he had prepared in Frame. Wow, his figures stayed where he wanted them. He had complete freedom in placement of text and figures. All of the figures were numbered, and he could refer to them by number and/or page in the text; if he changed the order of the figures, the references to them changed correspondingly. I was impressed."

[Using Interactive VRML to Teach Organic Reaction Mechanisms](#)

Steven P. Wathen
Division of Mathematics, Computing and the Sciences
Siena Heights University
Adrian, MI 49221

Using spreadsheets in chemical education to avoid symbolic mathematics

[Kieran F. Lim](#) ()
School of Biological and Chemical Sciences, Deakin University,
Geelong, Victoria 3217, Australia
<<mailto://lim@deakin.edu.au>>
<<http://www.deakin.edu.au~lim>>

Abstract

Traditionally, quantum theory has traditionally relied heavily on the use of mathematics. However, there is a significant cohort of students who are weak in mathematics, for example, students who are majoring in biochemistry, biological sciences, etc. This paper reports on the use of spreadsheets to generate approximate numerical solutions and visual (graphical) descriptions as a method of avoiding or minimising symbolic manipulations, mathematical derivations and numerical computation. A specific example from quantum theory is provided. Some aspects of educational pedagogy of spreadsheet usage are discussed.

Finding Images on the WWW

[Harry E.Pence](#)
SUNY Oneonta, Oneonta, NY

pencehe@oneonta.edu

Harry has come up with a great article with really useful links, AS usual I didn't even

know most of these existed.

The web is an excellent alternative, since many web pages include images. Unfortunately, it can be a discouraging job to find the desired needle in the midst of the two billion pages of the WWW haystack. There are, however, several resources that can make this searching easier and more likely to be successful.

Review of Photo Software

[Brian Pankuch](#)

Chemistry Department
Union County College
Cranford, NJ 07016

A number of features strike me when I turn on the PowerBook (800 MHz G4 processor with Velocity Engine, 1GB memory) next to my 20 inch monitor connected to the desktop system.. The 15.2 in diagonal PowerBook screen looks to be similar in size to the 20 in monitor. The PowerBook is 5.5 lbs complete with a much smaller footprint.
