

EXOCHARMIC CHEMISTRY ON THE WEB

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Butch Atwood from the University of Georgia got me involved with this project. He was involved with setting up the WebCT site and asked me to do the demo part. [I will retire in 1.34 years and am looking for interesting things to do please keep me in mind, my vita will be on my home page as of 3/7/01!]

Ten chemical demonstrations have been videotaped for the Chemistry Community and WebCT. In some cases the demonstrations are too dangerous or just a pain to "perform" in a normal classroom. Sometimes the equipment and/or chemicals are hard to get, but these demos can certainly be shown on the web. Each demonstration exhibits common chemical themes that are readily transposable into classroom teaching units. For instance, when discussing atmospheric pressure in the classroom a simple demonstration is to crush a soda can using atmospheric pressure. You can integrate that demonstration with the crushing of a 55-gallon drum using the same technique. [One of my goals in life is to crush a tanker truck using atmospheric pressure. This has happened in real life and I am trying to get the Letterman people to pop for one for the show. I have done science demos on the show for the last 10 years.]

There are also videos of the highly exothermic thermite reaction, an explosion of an ostrich egg using hydrogen gas, the redox reaction of magnesium and carbon dioxide, plus seven others. These provide an excellent way to safely add some pizzazz to your classroom. In addition I believe a demonstration really does increase student understanding, along with being a motivational device. Demos are inherently "exocharmic" as Ramette stated in his J. Chem. Ed. article of 1/1/1980. The Ira Remsen story that so many of us have read speaks to this: "While reading a text book on chemistry I came upon the statement, 'nitric acid acts upon copper.' I was getting tired of reading such absurd stuff and was determined to see what this meant." This is what a good demo can do -- show you the chemistry!

To see the demos on WebCT go to:

<http://www.webct.com/service/ViewContent?contentID=1249554&communityID=858&categoryID=-1&sIndex=0>

(Demos require the free [Real Player 8.0.](#))

If link does not work go to my web site, <http://www.ncusd203.org/north/depts/science/chem/marek/>, and click on the WebCT link. Once there, click on chemistry. Use the site search engine with my name Marek to access the 10 demos.

If you want to see additional ways I use the web with my chemistry and AP classes go to my web site. <http://www.ncusd203.org/north/depts/science/chem/marek/>
