Classroom Demonstrations

3 of 8 participants in this group do demos regularly

….but most see some value in doing this

- Rob Britton - Simon Fraser U
- Ashley Causton - U Calgary
- Dennis Hall - U Alberta
- Fraser Hof - U Victoria
- Manzar Saberi - G MacEwan
- Stephen Twa - NAIT
- John Vederas - U Alberta
- Andrew Wee - U Regina

Classroom Demonstrations

Pros

- Grab attention, more immediate than video
- Stimulate interest in subject
- Raise energy level in class
- Adaptable to different lecture styles & sizes

Cons

- Take class time, preparation time
- Relevance to subject matter can be problematic
- Safety & liability, facility & ventilation limitations
- May often require assistant

Classroom Demonstrations - Scope

- Reactions: fires & explosions, colour changes etc.
- Models & samples that are shown & distributed
- Classroom performance systems (CPS) or I-Click
- Other audiovisual: movies & 3D projection

Sources for Classroom Reactions

- B. Z. Shakhashiri *Chemical Demonstrations* Volumes 1-4

  Univ. Wisconsin Press

- *Journal of Chemical Education* & ACS Chem Ed Conf

  http://jchemed.chem.wisc.edu

- David Brooks Univ. Nebraska Lincoln

  http://chemmovies.unl.edu/chemistry/beckerdemos/bd000.htm

- Colleagues

A Few Examples

- Isopropyl alcohol & candle
- Burning book
- Samples to smell & examine, steroid pheromone
- Vodka oxidation, nylon rope, enantiomer models

Reactions: Key Considerations

- Safety & practicality at site
- Practice beforehand at least twice
- Get assistant if possible
- Write and record your version & results

Classroom Performance Systems (CPS)

- Clicker system allows anonymous response to question
- Response can also be recorded, graded or rewarded
- Provides rapid feedback to both student and instructor

  Do I as a student understand ?

  What proportion of class understands ?

- RF (Radio) can handle ca 600 per second
- Easy to setup, modest cost: $ 20 - $ 40 each to purchase