



**Illinois Wesleyan University**  
**Digital Commons @ IWU**

---

John Wesley Powell Student Research  
Conference

1992, 3rd Annual JWP Conference

---

Apr 25th, 10:30 AM - 4:30 PM

## Chemical Demonstrations: Wooing Students into Chemistry

James Heise  
*Illinois Wesleyan University*

Forrest J. Frank, Faculty Advisor  
*Illinois Wesleyan University*

Follow this and additional works at: <https://digitalcommons.iwu.edu/jwprc>

---

Heise, James and Frank, Faculty Advisor, Forrest J., "Chemical Demonstrations: Wooing Students into Chemistry" (1992). *John Wesley Powell Student Research Conference*. 33. <https://digitalcommons.iwu.edu/jwprc/1992/posters/33>

This Event is protected by copyright and/or related rights. It has been brought to you by Digital Commons @ IWU with permission from the rights-holder(s). You are free to use this material in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/ or on the work itself. This material has been accepted for inclusion by faculty at Illinois Wesleyan University. For more information, please contact [digitalcommons@iwu.edu](mailto:digitalcommons@iwu.edu).

©Copyright is owned by the author of this document.

## CHEMICAL DEMONSTRATIONS: WOOLING STUDENTS INTO CHEMISTRY

James Heise, Dept. of Chemistry, IWU, Dr. Forrest Frank\*

It is no hidden secret that the U.S. will desperately require increasing numbers of chemists and other chemically knowledgeable personnel with which to continue scientific research in chemistry and chemically related fields including medicine and microbiology. Such research will provide the necessary information with which to feed the growing high technology sector of our economy and help improve the quality of life around the globe.

Geared toward the ends of attracting more young high school aged students into chemistry and chemistry related fields, this educationally focused work is based on studies delving into the crucially important question: Why do students like or dislike chemistry? Using this question and prior research on this topic gathered from sources including The Journal of Chemical Education, The Journal of Research in High School Science and Mathematics, The Science Teacher, and many others as a guideline, ideas were generated on how to introduce students to the seemingly magical world of chemistry and to make the subject itself more interesting, palatable, and hands-on through the use of chemical demonstrations that target students' senses by using light, color and sound to produce sensory stimulating effects.

Demonstrations that are chemically relevant to high school chemistry classes have been put together so as to be easily observed, discussed, and enjoyed for the complete benefit of the student and at low cost to any high school science department. Work completed includes demonstrations dealing with acid-base chemistry, gas laws, and the physical and chemical properties of hydrogen and carbon dioxide, as well as specific chemical concepts such as density.