

DANIEL H. EVANS, Ph.D.

Phone: 818-472-8039

E-mail: dr_dhe@yahoo.com

EDUCATION

- 1982 - 1988 Ph.D. in Chemistry, June 1988, Pennsylvania State University, University Park, Pennsylvania.
- 1978 - 1982 B.S. in Chemistry, Magna Cum Laude, May 1982, King's College, Wilkes-Barre, Pennsylvania.
- 1978 - 1982 B.S. in Mathematics, Magna Cum Laude, May 1982, King's College, Wilkes-Barre, Pennsylvania.

EXPERIENCE SUMMARY

- 2000 – 2007 **Adjunct Instructor:** Prepare lecture materials, demonstrations, testing materials, and conducted the classes for the courses listed below. Class sizes ranged from small single sessions to triple sessions of over 75 students.

Prepared laboratory worksheets for use at Moorpark College and College of the Canyons.

Second Semester General Chemistry: *Antelope Valley College*; lecture, laboratory, and small assembly; Spring and Summer 2002; laboratory, and small assembly; Spring 2004 and Spring 2005.

First Semester General Chemistry: *Antelope Valley College*; lecture, laboratory, and small assembly; Fall 2002. Laboratory, and small assembly; Fall 2003, 2004, and 2006.

First Semester General Chemistry Recitation and Lab: *College of the Canyons*; Laboratory and recitation; Fall 2006.

First Semester General Chemistry: *Moorpark College*; laboratory, Spring 2001.

Preparatory General Chemistry: *College of the Canyons*; laboratory, Fall 2003.

Preparatory General Chemistry: *College of the Canyons*; lecture and laboratory, Fall 2004 to present.

Introductory Chemistry: *Moorpark College*; lecture and laboratory, Fall 2000 to present. This has been a condensed semester course since Spring 2002.

Introductory Chemistry: *Antelope Valley College*; lecture and laboratory, Intersessions 2003, 2004, and 2005.

Environmental Science: *Moorpark College*; Spring and Summer 2004.

Environmental Science Lab: *Moorpark College*; Spring and Summer 2004.

Trigonometry: *Antelope Valley College*; lecture, Spring 2002.

Laboratory for Introductory Chemistry: *Antelope Valley College*; Fall 2001.

Introductory Chemistry: *Pierce College*; lecture and laboratory; Spring 2001.

- 1990 -2001 **Senior Scientist.** *Parsons Engineering Science.* Conducted treatability studies for optimizing treatment of drinking water. Examined the use of powdered activated carbon, potassium permanganate, and enhanced coagulation to achieve a reduction in the total

- trihalomethane formation potential.
- Conducted treatability studies for fluoride removal from wastewater of a metal finishing facility. Using recommendations from the study, the metal finishing facility was able to meet a lower discharge limit for fluoride in their wastewater. Conducted optimization studies of a nitrite removal system for industrial wastewater. This treatment unit was optimized for dosage requirements and minimum reaction times.
 - **Laboratory Director.** *Parsons Engineering Science.* Managed an environmental analytical laboratory for the client, Metropolitan Transportation Authority. Instrumental in obtaining and maintaining State certification for the laboratory. Responsible for writing standard operating procedures, reviewing quality assurance procedures and quality control data, scheduling, and *training*.
 - **Project Manager.** *Parsons Engineering Science.* Prepared waste analysis plan and a hazardous waste minimization report. Prepared waste minimization and hazardous material minimization sections for a hazardous waste management plan and a hazardous material management plan. Conducted a waste minimization directed study of the shelf-life of hazardous materials in order to extend shelf-life of materials to reduce disposal based on conservative expiration dates. Conducted data validation of environmental analytical data for a variety of projects.
 - Managed environmental regulatory permit planning, compliance programs for the Major Projects program for the Wilmington Refinery of Shell Oil Company. Responsibilities included technical analysis and supervisory functions on air, water, and hazardous waste projects.
- 1988 - 1990 **Research Associate.** *University of Southern California.* A joint appointment with Department of Environmental Engineering and Department of Chemistry. Directed research towards the commercial development of a pyrolytic method of destruction of polychlorinated biphenyl's and other chlorinated hydrocarbons. The research involved design of both batch and flow reactors and the determination of the process destruction and removal efficiencies.
- Applied EPA methodologies to the investigation of destruction and removal efficiencies, including identification and quantification of pyrolytic by-products. Extensive use of chemical analysis including sample extraction and preparation and use of a variety of gas chromatographic methods including gas chromatograph/mass spectrometer.
- 1982 - 1988 **Research Assistant.** *Pennsylvania State University.* Department of Chemistry. Conducted research on the mass spectrometric analysis of gas phase ion-molecule reactions to determine equilibrium constants and thermodynamic values. Controlled and operated quadruple mass filters, and data acquisition systems. Investigated geometry's and energies of neutral molecules and ion-molecule complexes utilizing a variety of semi-empirical and ab initio programs and various computers including Cray 1 at Lawrence Livermore Laboratory, IBM Mainframe 370, and the Prime super minicomputer.
- **Teaching Assistant.** *Pennsylvania State University.* Responsible for General Chemistry Lab, including instruction in laboratory techniques, quizzes, and laboratory safety.
- 1978 - 1982 **Tutor.** *King's College.* Tutored mathematics on a walk-in basis in the departmental mathematics lab. Tutored chemistry and physics on individual basis through the school tutoring office.
- 1981-1982 **Independent Research:** Studies of solvation methods of pyrite removal from anthracite coal. Advisor: G. Mitra, King's College
- 1981 **Summer Internship.** Inorganic synthesis of uranyl compounds and analysis via x-ray

fluorescence. Advisor: V. Fassel, Iowa State University

CONTINUING EDUCATION

Fall 2006 Associate Program, College of the Canyons
Spring 2006 Frontpage Workshop, College of the Canyons
Spring 2006 Blackboard Workshop, College of the Canyons
Fall 2005 Section 508 Website Accessibility Workshop, College of the Canyons
Fall 2005 Strategies for Success in Online Teaching, College of the Canyons
Fall 2004 Web Tools Workshop, Moorpark College

AWARDS

Philadelphia Chapter, American Institute of Chemists Award, 1982.
The Reverend James E. Kline Award for Mathematics – King's College, 1982.
Outstanding Senior Chemist – King's College, American Institute of Chemists, 1982.

PUBLICATIONS AND PRESENTATIONS

"Ammonia-Halide Ion Complexes in the Gas Phase," R.G. Keesee, D.H. Evans, R. Passarella, and A. W. Castleman, Jr., Abstract, American Chemical Society Meeting, Philadelphia, August 26-29, 1984.

"Studies of Mixed Clusters via High Pressure Mass Spectrometry," B.L. Upschulte, F.J. Schelling, K. I. Peterson, D. H. Evans, R. G. Keesee, and A. W. Castleman, Jr., Abstract, 32nd Annual Conference on Mass Spectrometry and Allied Topics, San Antonio, Texas, May 27 - June 1, 1984.

"The Association of Ammonia with Halide Ions in the Gas Phase," R.G. Keesee, D. H. Evans, and A. W. Castleman, Jr., Abstract, 37th Annual Gaseous Electronics Conference, Boulder, CO, October 9-12, 1984.

"Recent Experimental Data of the Gas-Phase Association of Ammonia with Halide Ions: Comparison with Alkali Ions," R. Passarella, D. H. Evans, R.G. Keesee, and A. W. Castleman, Jr., Abstract, American Physical Society Meeting, April 24-27, 1985, Washington, D.C.

"Thermochemical Properties of Potassium Cations," D.H. Evans, R. G. Keesee, and A. W. Castleman, Jr., Abstract, ACS Meeting, New York, April 13-18, 1986.

"Thermochemical Properties of Potassium Cations," D.H. Evans, R. G. Keesee, and A. W. Castleman, Jr., Proceedings, 34th Annual ASMS Meeting, June 3-13, 1986, Cincinnati, Ohio.

"The Gas Phase Association of Ammonia with Halide Ions," (with R. G. Keesee and A. W. Castleman, Jr.), 8th East Coast Ion Molecule Reaction and ICR Symposium, Newark, Delaware, October 18, 1986.

"The Association of Ammonia with Halide Ions in the Gas Phase," D.H. Evans, R. G. Keesee, and A. W. Castleman, Jr., *Journal of Chemical Physics*, 86, 2927 (1987).

"The Thermodynamics of Mixed Solvent Cluster Ions: $K^+(CH_3OH)_n(H_2O)_m$ " R. G. Keesee, D. H. Evans, and A. W. Castleman, Jr., in *Physics and Chemistry of Small Clusters*, P. Jena, B. K. Rao, S. N. Khanna, eds. NATO ASI Series B 158, 687 (1987).

"Thermodynamic Studies of Binary Solvent Ion Clusters," (with R. G. Keesee and A. W. Castleman, Jr.), 9th East Coast Ion Molecule Reaction and ICR Symposium, Newark, Delaware, October 17, 1987.

"An Innovative Technology for Effective Destruction of Halogenated Hydrocarbons," May 1989, California Department of Health Services, Sacramento, California.

"An Innovative Technology for Effective Destruction of Halogenated Hydrocarbons," June 1990, California Department of Health Services, Sacramento, California.

Thermodynamics of gas-phase mixed-solvent cluster ions: water and methanol on K⁺ and Cl⁻ and comparison to liquid solutions" D. H. Evans, R. G. Keesee, and A. W. Castleman, Jr., *The Journal of Physical Chemistry*, 95, 3558 (1991).

"Pyrolytic Destruction of Polychlorinated Biphenyl's in a Reductive Atmosphere," D. H. Evans, M. Pirbazari, S. W. Benson, T. T. Tsotsis, and J. S. Devanny, *Journal of Hazardous Materials*, 27, 3, 253 (1991).

CONTRIBUTED TALK

"The Gas Phase Association of Ammonia with Halide Ions," (with R. G. Keesee and A. W. Castleman, Jr.), 8th East Coast Ion Molecule Reaction and ICR Symposium, Newark, Delaware, October 18, 1986.

"Thermodynamic Studies of Binary Solvent Ion Clusters," (with R. G. Keesee and A. W. Castleman, Jr.), 9th East Coast Ion Molecule Reaction and ICR Symposium, Newark, Delaware, October 17, 1987.

SOCIETIES

Professional: American Chemical Society

Honorary: Delta Epsilon Sigma
Aquinas Society