

Curriculum Vitae

Harry Joseph Elston

Midwest Chemical Safety, LLC

9380 Wandering Trails Ln

Dawson, IL 62520

(217) 971-6047 (W)

helston@midwestchemsafety.com (e-mail)

Education

Ph.D. Columbia Pacific University, College of Arts and Sciences,
San Rafael, CA. 1996.

Doctoral Dissertation: *Molecular Dynamics in p-Difluorobenzene-Ar van der Waals Molecules. Rotational Effects of Dissociation, Heavy Molecule Spectroscopy and Dissociation Dynamics.*

M.S. Indiana University, Bloomington, IN. Physical Chemistry,
1992.

B.S. Hillsdale College, Hillsdale, MI. Chemistry and Physics,
1984.

Professional Certification

Diplomate, American Board of Industrial Hygiene. (Comprehensive Practice). Certificate number 8258, 2002-Present.

Certified Chemical Hygiene Officer, National Registry of Certified Chemists, (Number 2421), 1997-Present.

Professional Societies

American Chemical Society, 1990-Present

Division of Physical Chemistry, 1990-1995

Division of Chemical Health and Safety, 1995-Present

American Industrial Hygiene Association, 2003-Present.

Professional Experience

Illinois Emergency Management Agency/Illinois Department of Nuclear Safety, Springfield, IL. Nuclear Safety Scientist, Group Supervisor and Chemical Hygiene Officer. 1992-Present.

Midwest Chemical Safety, LLC, Dawson, IL. Principal. 1996-Present. (Midwest Chemical Safety specializes in chemical safety consulting, formulating chemical hygiene plans and facility safety plans, emergency preparedness, chemical safety training, emergency management, crime scene safety (clandestine laboratories) and occupational/industrial hygiene consulting services.)

U.S. Navy. USS Theodore Roosevelt, CVN-71, Norfolk VA. Nuclear Engineer and Chemistry/Radiological Controls Assistant, (Radiation and Chemical Safety Officer). 1982-1988.

Professional Involvement

Editor in Chief, *Journal of Chemical Health & Safety*, 1999-Present

Board of Editors, *Journal of Chemical Health & Safety*, 1998-1999.

Certification Examination Committee, National Registry of Certified Chemists, 2000. (Chemical Hygiene Officer Examination)

American Industrial Hygiene Association Publication Committee, Committee Member. 2002-Present

American Chemical Society Committee on Chemical Safety:

- Associate Member, 2003-2006
- Consultant, 2006-2010
- Member, 2010-Present
- Chair, Safe Practices Subcommittee, 2008-Present.

Awards and Honors

Howard Fawcett Chemical Health and Safety Award, Division of Chemical Health and Safety, American Chemical Society, 2003.

Fellow, Division of Chemical Health and Safety of the American Chemical Society, 2003.

Adjunct Teaching Experience

Adjunct Professor of Mathematics and Chemistry. Richland Community College, Decatur, IL.

- Fall 1993: Mathematics 091, Basic Algebra, 4 hours.
Mathematics 160, Finite Math, 4 hours.
- Spring 1994: Mathematics 091, Basic Algebra, 4 hours.
Chemistry 100, Basic Chemistry, 4.5 hours.
- Fall 1994: Mathematics 091, Basic Algebra, 4 hours.
Mathematics 115, Intermediate Algebra, 4 hours.
- Spring 1995: Mathematics 098, Intermediate Algebra, 4 hours.
Mathematics 091, Basic Algebra, 4 hours.
- Fall 1995: Mathematics 091, Basic Algebra, 4 hours.
Mathematics 160, Finite Math, 4 hours.
- Fall 1997: Mathematics 104, Technical Math, 4 hours.
Mathematics 087, Basic Mathematics, 3.5 hours.

Community Involvement

Lakeside Christian Church, Springfield, IL. Deacon, 1993-1995, 1998-1999.

Springfield Youth Symphony, Springfield, IL.
Parent/Sponsor. 2000-2006

Springfield Area Christian Home Educators, Springfield, IL.
Member. 2000-Present

Illinois High School (Athletic) Association. Baseball/Softball
Official, 1992-Present

Indiana High School Athletic Association. Baseball Official,
1989-1992.

Michigan High School Athletic Association. Baseball Official,
1978-1988

Publications

1. Harmonic mode scrambling in *p*-difluorobenzene. With E.R. Davidson and C.S. Parmenter. *Chem. Phys. Lett.*, **1992**, 197, 123.
2. Vibrations of S_1 ($^1B_{2u}$) *p*-Difluorobenzene- d_4 . S_1 - S_0 Fluorescence Spectroscopy and ab Initio Calculations. With E.R. Davidson, C.S. Parmenter and F.G. Todd. *J. Phys. Chem.*, **1993**, 97, 5506.
3. Influences of Internal Rotation on Vibrational Predissociation Dynamics. With B.D. Gilbert, C.S. Parmenter, H.-K. Oh, T.A. Stone, M.-C. Su and Z.Q. Zhao. *Proceedings of the 6th International Conference on Time Resolved Vibrational Spectroscopy, 1993*. A. Lau ed. (Heidelberg: Springer-Verlag, 1994).
4. Managing Chemical Spills in the Laboratory: How Big is Too Big? With William E. Luttrell. *Chem. Health Safe.*, **1997**, 4(2), 10-13.
5. Designing Effective Laboratory Safety Programs. With William E. Luttrell. *Chem. Health Safe.*, **1997**, 4(4), 11-13.
6. The OSHA Laboratory Standard. "Regs in Review." *Facility Care*. **1997**, 2(8), 8.
7. The CHO's Spectrum of Responsibilities. With William E. Luttrell. *Chem. Health Safe.*, **1998**, 5(3), 15-18.
8. A Whistle-stop Tour of OSHA for Laboratories: Regulations and Standards for the Chemical Hygiene Officer (I). *Chem. Health Safe*. **1998**, 5(6), 9-11.
9. The Methylene Chloride Standard. "Federal Regs." *Compliance*. **1998**, 5(10), 10.
10. Environmental Regulations for the Chemical Hygiene Officer: Regulations and Standards for the Chemical Hygiene Officer (II). With Neal Langerman. *Chem. Health Safe*. **1999**, 6(2), 11-14.
11. Regulations and Standards for the Chemical Hygiene Officer (III)-NFPA and ANSI. *Chem. Health Safe*. **1999**, 6(5), 33-36.
12. The CHO's Eye-Q Examination (I) – General Laboratory Safety. With Douglas Walters. *Chem. Health Safe*. **2000**, 7(6), 5-8.
13. The CHO's Eye-Q Examination (II) – Ventilation. With Douglas Walters. *Chem. Health Safe*. **2000**, 7(6), 26-28.

14. The CHO's Reference Library. With Jay Young and the Board of Editors to *Chemical Health & Safety*. *Chem. Health Safe.* **2001**, 8(1), 6-7.
15. Medical Management Guidelines for Acute Chemical Exposures. With Larry Morris. *Chem. Health Safe.* **2002**, 9(6), 8-10.
16. Funding Safety Activities in Secondary Schools. With William C. Penker. *J. Chem. Ed.* **2003**, 80, 1401-1402.
17. You Have What? An evaluation of Three New Jersey Public School Chemical Inventories. With William Becker. *Chem. Health Safe.* **2004**, 11(5), 21-23.
18. Preventative Maintenance Systems and the Laboratory Safety Professional. *J. Chem Health Safe.* **2007**, 14(1), 5-9.
19. The Chemical Hygiene Officer's Radiation Protection Primer. *J. Chem. Health Safe.* **2008**, 15(1), 14-19.
20. Deciding What to Keep: The Battle Over Chemical Inventories in Secondary Schools. (+8 co-authors). *J. Chem. Health Safe.* **2009**, 16(6), 18-23.

Dissertation

Molecular Dynamics in *p*-Difluorobenzene-Ar van der Waals Molecules. Rotational Effects of Dissociation, Heavy Molecule Spectroscopy and Dissociation Dynamics. Ph.D. Dissertation. Columbia Pacific University, San Rafael, CA. 1996. (Available at University Microfilms, Ann Arbor, MI)

Presentations

1. *Rotational Energy Distributions After Vibrational Predissociation from p-difluorobenzene-Ar van der Waals Complexes.* 45th Molecular Spectroscopy Symposium, Columbus, OH, 1990.
2. *p-Difluorobenzene-d₄ S₁ Vibrational Spectroscopy.* American Chemical Society Regional Meeting, Indianapolis, IN, 1991.
3. *A New Look at an old Molecule: The Vibronic Spectroscopy of p-Difluorobenzene-d₄.* 46th Molecular Spectroscopy Symposium, Columbus, OH 1991.
4. *Essential Elements of Laboratory Safety.* Downstate Illinois Occupational Safety and Health Day, Peoria, IL, 1997. (Invited paper).

5. *Combating Radioactive Spills in Semi-Confined Spaces: Personnel and Contamination Considerations.* American Chemical Society National Meeting, April 2000. (Invited paper).
6. *Counting the Cost: Establishing an Emergency Response Team.* Laboratory Safety and Environmental Management Conference, Alexandria VA. July 2000. (Invited paper).
7. *Should we or shouldn't we? Is an Emergency Response Team Right for Your Organization?* Campus Safety, Health and Environmental Managers Association Conference, College Station, TX. July 2001. (Invited paper).
8. *What if? The Balance of Safety in Extremis and Productivity.* American Chemical Society National Meeting, August 2001. (Invited Paper)
9. *Fixed Radiation Instrumentation for Analytical Laboratories.* American Chemical Society National Meeting, August 2001.
10. *Portable Radiation Monitoring Equipment for Hazardous Materials Emergency Response Incidents.* American Chemical Society National Meeting, August 2001.
11. *Funding Safe Science in Secondary Schools.* American Chemical Society National Meeting, March 2003. (Invited Paper).
12. *The Future of Chemical Safety, Leading From the Front.* Division of Chemical Health and Safety Howard Fawcett Award Address. American Chemical Society National Meeting, September 2003. (Invited Paper).
13. *Alternative Careers for Chemists.* Panel Discussion. Division of Chemical Health and Safety, American Chemical Society National Meeting, March 2004. (Invited Panelist).
14. *Safety Concerns in Radioanalytical Work. Does the Dose Make the Poison?* American Chemical Society National Meeting, March 2005. (Invited Paper).
15. *OLCC Lessons Learned: Emergency Response.* American Chemical Society National Meeting, March 2005. (Invited Paper).
16. *Post-Tornado Community Response Efforts in America's Heartland.* American Chemical Society National Meeting, Fall 2006. (Invited Paper).

17. *Unseen Hazards in the Industrial Plant: The use (and misuse) of radioactive material in the process industry.* American Chemical Society National Meeting, April 2008
18. *How to teach what you don't remember: The challenge of high school science and homeschooling.* American Chemical Society National Meeting, April 2008 (Invited Paper).