

Richard S. Herrick, Ph.D.

College of the Holy Cross

Department of Chemistry
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Education

Union College, Schenectady, NY B.S. in Chemistry, 1978, Summa Cum Laude
University of North Carolina, Chapel Hill Ph.D. in Inorganic Chemistry, January 1983
Research Director: Dr. Joseph L. Templeton
Thesis: "Preparation and Chemistry of Molybdenum(II) Alkyne Dithiocarbamate Complexes"

Professional Experience

University of Illinois, Department of Chemistry
February 1983 - July 1984 Postdoctoral Research Assistant - Dr. Theodore L. Brown.
Examined Rapid Kinetic Processes of Organometallic Transients Generated by Flash
Photolysis.
College of the Holy Cross, Department of Chemistry
September 1984 - August 1991 Assistant Professor
September 1991 - Present Associate Professor
July 1993 - June 1996 Chair
July 1999 - June 2000 Acting Chair
September 2000 - Professor of Chemistry
September 2003 - Science Coordinator

Teaching

Courses Taught

Structure and Bonding (CHEM013): Fall 1984, 1985, 1986, 1987, 1988
General Principles Lab (CHEM017): Fall 1984, 1985, 1986, 1987, 1988
Inorganic I (CHEM014): Spring 1985, 1986, 1987, 1988, 1989
Inorganic Lab (in Physical Chemistry) Spring 2003, Fall 2003, Spring 2005
Chemical Techniques Lab (CHEM016): Spring 1985, 1986, 1987, 1988, 1989
Advanced Inorganic Chemistry (CHEM101): Spring 1985, 1986, 1987, 1988, 1989, Fall 1989, 1990,
1991, Spring 1993, 1994, 1995, 1996, 1997, 1998, 2001, 2003, 2005
Atoms and Molecules (CHEM001): Fall 1989, Spring 1990, Fall 1990, 1991, 1992, 1993, 1994, 1995,
1996,* 1997,* 1999, 2000, 2001, 2002, 2003, 2004 (* - taught 3 lab sections)
IER/Biophysical Chemistry (CHEM031): Spring 1992, 1993, 1998, 2000, 2001, 2004
Topics in Bioinorganic Chemistry (CHEM112): Spring 1997, Fall 2001, 2003, Spring 2004 (tutorial)
Topics in Surface Chemistry (CHEM112): Fall 1992
Research and Seminar (CHEM106/108): Fall 1990, Spring 1993, Fall 1994, Spring 1996
Chemistry and Society (CHEM044): Fall 1990
Organic Chemistry Lab (CHEM022): Spring 1990

Direction of Student Research (see Teaching Statement for details)

I have supervised the research efforts of 56 students who have worked in my laboratories during the academic year and/or during the summer. Twenty-one former students have completed chemistry Ph.D.'s or are working toward that goal.

Research

Research Interests

Synthesis and Characterization of Electron Deficient Molybdenum(II) and Tungsten(II) Complexes.
Flash Photolysis Studies of Organometallic Transients.
Synthesis and Characterization of Novel Amino Acid and Peptide Derivatized Ferrocene Compounds.
Preparation of Novel Metal Carbonyl Compounds with Schiff Bases Containing Amino Acids or Peptide Ligands.

Grants and Awards (external) – totaling \$1,347,062

1. American Chemical Society Student Affiliate Grant; "A Non-Traditional Career Day in Chemistry" (\$150, 1986).
2. Petroleum Research Fund Type G Grant. "Flash Photolysis of Cobalt Carbonyl Transients" (\$15,000; 1985-87).
3. Research Corporation. "Kinetic Studies on Group 6 d^4 Compounds," (\$19,000 April 1987-89).
4. National Science Foundation; Research Experiences for Undergraduates. "Undergraduate Chemistry Summer Research Program at Holy Cross," (\$31,250; Summer 1987).
5. National Science Foundation; Research Experiences for Undergraduates. "Undergraduate Chemistry Summer Research Program at Holy Cross," (\$104,108; Summer 1988-90).
6. Petroleum Research Fund. Type B. "Kinetic Studies of Lewis Base Addition to η^3 -Hydrocarbon Intermediates," (\$20,000; 1989-91).
7. Pew Charitable Trust - New England Consortium for Undergraduate Science Education. "Organometallic Summer Undergraduate Research Group Meetings at Holy Cross and Dartmouth," (\$3400, 1990).
8. Pew Charitable Trust - New England Consortium for Undergraduate Science Education. "Summer Undergraduate Research Fellowship," for Christopher Ziegler - Bowdoin '92 (\$3,000, 1991).
9. Pew Charitable Trust - New England Consortium for Undergraduate Science Education. "Laboratory Development for General Chemistry," (\$6,000, 1991).
10. National Science Foundation; Research at Undergraduate Institutions. Co-P.I. "Spectroscopic and Synthetic Aspects of Alkynes as π -Base Ligands," (\$132,100, 1992-94).
11. Council of Undergraduate Research, CURSOR Student Fellowship for Joshua Farrell. "Synthesis and Characterization of Ferrocenyl Derivatized Metal Alkyne Complexes," (\$3,150, 1993).
12. Pew Charitable Trust - New England Consortium for Undergraduate Science Education. "Organometallic Summer Undergraduate Research Group Meetings at Holy Cross," (\$3,325, 1993).
13. Pfizer Foundation - The Art of Teaching Chemistry - Program to develop multimedia review software for students for Discovery Chemistry Program, Co-P.I., \$25,000, 1994.
14. Pew Charitable Trust - New England Consortium for Undergraduate Science Education. "Computer Equipment for Software Development," Co-P.I. (\$4,200, 1994).

15. Pew Charitable Trust - New England Consortium for Undergraduate Science Education. "Software Programs for use by Holy Cross Chemistry Students," (\$1,800, 1994).
16. Merck/AAAS, Undergraduate Science Research Program, Co-P.I., (\$45,000, 1994).
17. Pew Charitable Trust - New England Consortium for Undergraduate Science Education. Student Travel For Rebecca Slate: "Retaining Women and Minorities In Science" \$1025.
18. National Science Foundation, Academic Research Innovation. "Renovation of Chemistry Research Facilities at the College of the Holy Cross: Fostering Cooperative Investigations," Co-P.I., (\$900,000, 1995).
19. Pew Charitable Trust - New England Consortium for Undergraduate Science Education. "Purchase and Implementation of a Server for the Science and Mathematics Division at the College of the Holy Cross" J. Van Doren and K. Prestwich, Co-P.I. (\$10,000, 1996).
20. Pew Charitable Trust - New England Consortium for Undergraduate Science Education. "Preparation of Multimedia Images for Inorganic Chemistry." \$1554.
21. The Coca-Cola Foundation. "The Coca-Cola Density Experiment," Ronald Jarret, co P.I., (\$10,000, 1998).
22. Petroleum Research Fund Supplemental Grant, through Prof. Christopher Ziegler (University of Akron). ACS PRF# 39625.01 -G 5M\$8,000, Summer 2004.
23. Petroleum Research Fund Supplemental Grant, through Prof. Christopher Ziegler (University of Akron). ACS PRF# 39625.01 -G 5M\$8,000, Summer 2005.

Grants Obtained as Science Coordinator (written with Chick Weiss)

1. Becton Dickinson Foundation, "Title" \$75,000, 2003
2. Simeon J. Fortin Foundation, "Investing in Biomedical Research and the Nation's Future Biomedical Researchers" \$40,000, 2003
- 3.
- 4.
5. Simeon J. Fortin Foundation, "Investing in Biomedical Research and the Nation's Future Biomedical Researchers" \$70,000, 2005

Grants and Awards (Internal): 9 research awards totaling \$13,410

Professional Publications

1. Herrick, R.S. and Templeton, J.L., "The Synthesis, Properties and Dynamic Solution Behavior of Bis(alkyne)bis(dithiocarbamate) Molybdenum(II) Complexes," *Organometallics*, **1982**, 1, 842.
2. Herrick, R.S., Nieter, S.J. and Templeton, J.L., "Synthesis, Structure and Molecular Orbital Description of a Novel Molybdenum-Molybdenum Dimer," *J. Am. Chem. Soc.*, **1983**, 105, 2599.
3. Herrick, R.S., Leazer, D.M. and Templeton, J.L., "Substitution Mechanisms Utilized by Electron-Deficient Mo(CO)(RC₂R)(S₂CNMe₂)₂ Complexes in Reactions with Alkynes," *Organometallics*, **1983**, 2, 834.
4. Herrick, R.S., Nieter, S.J. and Templeton, J.L., "Synthesis, Spectral Properties and Molecular Structure of Bis(alkyne)-bis(pyrrloedithiocarbamate) Molybdenum(II) Complexes," *Inorg. Chem.*, **1983**, 22, 3275.

5. Templeton, J.L., Herrick, R.S. and Morrow, J.R., "Electrochemical and UV-Visible Studies on Formally Electron-Deficient Molybdenum(II) and Tungsten(II) Alkyne Adducts," *Organometallics*, **1984**, 3, 535.
6. Walker, H.W., Herrick, R.S., Olsen, R.J. and Brown, T.L., "Flash Photolysis Studies of Dinuclear Manganese Carbonyl Compounds," *Inorg. Chem.*, **1984**, 23, 3748.
7. Herrick, R.S. and Brown, T.L., "Flash Photolytic Investigation of Photoinduced Carbon Monoxide Dissociation from Dinuclear Manganese Carbonyl Compounds," *Inorg. Chem.*, **1984**, 23, 4550.
8. Herrick, R.S., Herrinton, T.R., Walker, H.W. and Brown, T.L., "Rates of Halogen Atom Transfer to Manganese Carbonyl Radicals," *Organometallics*, **1985**, 4, 42.
9. Templeton, J.L., Herrick, R.S., Rusik, C.A.; Mckenna, C.E.; McDonald, J.W. and Newton, W.E.; "Reactions of Cyclopropenes with Mo(II) and W(II) Carbonyl Complexes: Formation of Coordinated Vinyl Ketene," *Inorg. Chem.*, **1985**, 24, 1383.
10. Herrick, R.S. and Templeton, J.L., "Syntheses, Spectral Properties and Reactions of Tricarbonylbis (pyrroledithiocarbamate) Molybdenum(II) and Tungsten(II)," *Inorg. Chem.*, **1986**, 25, 1270.
11. Herrick, R.S., "Flash Photolysis Studies of Dinuclear Manganese Carbonyl Compounds," *Rev. Inorg. Chem.*, **1986**, 8, 1.
12. Herrick, R.S., Peters, C.H.,* and Duff, R.R.,* "Kinetic and Spectroscopic Properties of $\text{Mo}(\text{CO})_2(\text{PR}_3)_2\text{Br}_2$ Compounds," *Inorg. Chem.*, **1988**, 27, 2214.
13. Herrick, R.S., Frederick, A.B.,* Duff, R.R.,* "Flash Photolysis Studies of Lewis Base Addition to $\text{CpFe}(\text{CO})(\eta^3\text{-CH}_2\text{C}_6\text{H}_5)$," *Organometallics*, **1989**, 8, 1120.
14. Herrick, R.S., "Stimulating Student Interest in Chemistry Careers Through Summer Research at Undergraduate Schools: The Holy Cross Experience," *J. Coll. Sci. Teach.*, **1989**, 18, 294.
15. Herrick, R.S., George, M.S.,* Duff, R.R.,* D'Aulnois, F.H.A.,* Jarret, R.M., Hubbard, J.L., "Kinetic and Spectroscopic Studies of Transients Produced by Flash Photolysis of $\text{M}(\text{CO})_3(\text{PR}_3)_2\text{X}_2$ (M = Mo, W, X = Cl, Br)", *Inorg. Chem.* **1991**, 30, 3711.
16. Herrick, R.S., Botelho, P.J.,* "The Effect of Transition State Stabilization in Group 6 d^4 Tricarbonyl Compounds," *Microchem. J.*, **1993**, 47, 41.
17. Herrick, R.S., Duff, R.R.,* and Frederick, A.B.,* "Kinetic Studies of Lewis Base Addition to $\text{CpFe}(\text{CO})(\eta^3\text{-CH}_2\text{C}_6\text{H}_4\text{-p-X})$, X=OMe, Me, H, F, Cl, Br," *J. Coord. Chem.*, **1994**, 32, 103-116.
- 17a. R.W. Ricci, M.A. Ditzler, R. Jarret, P. McMaster, R. Herrick, The Holy Cross Discovery Chemistry Program, *J. Chem. Educ.* **1994**, 71, 404.
- 17b. R.S. Herrick, The Art of Teaching Chemistry, *J. Chem. Educ.* **1994**, 71, 926.
18. Herrick, R.S., Jarret, R.M., Curran, T.P., Dragoli, D.R.,* Flaherty, M.B.,* Lindyberg, S.B.,* Slate, R.A.* and Thornton, L.C.,* Ordered Conformations in Bis(Amino Acid) Derivatives of 1,1'-Ferrocenedicarboxylic Acid, *Tetrahedron Letters* **1996**, 5289.
19. Herrick, R.S., Nestor, L.P., Benedetto, D.A.,* Using Data Pooling to Measure the Density of Sodas; An Introductory Discovery Experiment, *J. Chem. Educ.* **1999**, 76, 1411.
20. R.S. Herrick, K.L. Houde,* J.S. McDowell,* L.P. Kiczek,* and G. Bonavia, Preparation and Characterization of Chromium, Molybdenum and Tungsten Compounds Containing Amino Acid Ester Derivatized Diimine Ligands. Crystal Structure of $\text{Mo}(\text{CO})_4(\text{pyca-}\beta\text{-ala-OEt})$. *J. Organomet. Chem.* **1999**, 589, 29.
21. R.S. Herrick, C.J. Ziegler, H. Bohan,* M. Corey,* M. Eskander,* J. Giguere,* N. McMicken,* and I. E. Wrona,* Preparation and characterization of molybdenum and tungsten compounds with diazabutadiene ligands constructed from amino esters and glyoxal. Crystal structures of meso and C_2 -symmetric isomers of $\text{Mo}(\text{CO})_4(\text{dab-asp}(\text{OMe})\text{-OMe})$. *J. Organomet. Chem.* **2003**, 687, 178.
22. Richard S. Herrick, Iwona Wrona,* and Naomi McMicken,* Glenn Jones, Christopher J. Ziegler, and Janet Shaw, Preparation and characterization of rhenium(I) compounds with amino ester derivatized diimine ligands. Investigations of luminescence. Crystal structures of $\text{Re}(\text{CO})_3\text{Cl}(\text{pyca-}\beta\text{-Ala-OEt})$ and $\text{Re}(\text{CO})_3\text{Cl}(\text{pyca-L-Asp}(\text{OMe})\text{-OMe})$. *J. Organomet. Chem.* **2004**, 689, 4848.

23. R.S. Herrick, Group 6 and 7 Organometallic Bioconjugates Prepared From Amino Acids, Peptides or Proteins, Accepted for a book chapter in "Progress in Organometallic Chemistry Research."
24. J.D. Harvey, J. Shaw, R.S. Herrick, C.J. Ziegler, The synthesis of Mo⁺² isostructural porphyrina dn N-confused porphyrin complexes." Chem. Commun. **2005**, xxx

*Undergraduates at Holy Cross

Scientific Presentations

1. A Systematic Approach to Alkyne-Cyclobutadiene Conversions in Group VIB Metal Complexes, American Chemical Society National Meeting, Atlanta, GA, 1981, co-author: J.L. Templeton.
2. Substitution Mechanisms of Electron-Deficient Molybdenum(II) Complexes in Reactions with Alkynes, American Chemical Society National Meeting, Kansas City, MO, 1982, co-authors; D.M. Leazer and J.L. Templeton.
3. Flash Photolysis Studies of Dinuclear Manganese Carbonyl Compounds, American Chemical Society National Meeting, St. Louis, MO, 1984, co-authors: H.W. Walker, T.L. Brown and R.J. Olsen.
4. Flash Photolysis Studies of Dinuclear Manganese Carbonyl Compounds," Department of Chemistry, Clark University, Worcester, MA, October 1984
5. "Flash Photolysis Studies of Dinuclear Manganese Carbonyl Compounds," Department of Chemistry, Union College, Schenectady, NY, April 11, 1986.
6. Flash Photolysis of Group 6 d⁴ Compounds, R. Herrick and C.H. Peters, American Chemical Society National Meeting, New Orleans, LA, 1986.
7. Kinetic and Spectroscopic Analysis of Group 6 d⁴ Compounds, R.S. Herrick, M.S. George and R.R. Duff, Third Chemical Congress of North America, Toronto, Canada, 1987.
8. "Flash Photolysis Studies of d⁴ Molybdenum Carbonyl Compounds," Department of Chemistry, Syracuse University, Syracuse, NY, February 18, 1988.
9. "Investigations of Group 6 d⁴ Transients via Flash Photolysis," Department of Chemistry, University of Vermont, October 15, 1988.
10. "Investigations of Group 6 d⁴ Transients via Flash Photolysis," Department of Chemistry, Texas A&M, December 7, 1988
11. Flash Photolysis Studies of Metal Carbonyls," Department of Chemistry, University of New Hampshire, February 15, 1990.
12. "Flash Photolysis Studies of Organometallic Compounds," Worcester Polytechnic Institute, January 31, 1990.
13. "Flash Photolysis Studies of Organometallic Compounds," Union College, April, 1993.
14. A Discovery Experiment for Chemical Kinetics: The Aquation of a Series of Cobalt(III) Complexes, American Chemical Society 205 National Meeting, Denver, CO, April, 1993.
15. The Chemistry of Amino Acids Attached to Ferrocene, NEACT Conference, Holy Cross, May 7, 1994.
16. Developing and Sustaining Discovery Chemistry, Project Kaleidoscope, College of the Holy Cross, June 16-18, 1994.
17. Multimedia Review Software Programs for Discovery Chemistry, National Science Foundation Workshop, College of the Holy Cross, October 26, 1994.
18. Development of MultiMedia Review Resources, Gordon Conference, Oxnard, CA, January, 1995.

19. Reflections on the Discovery Approach at Holy Cross, *Frontiers in Chemical Education*, University of North Carolina at Chapel Hill, March 24-25, 1995.
20. Preparing Instructional Software with the Toolbook Program, Anna Maria College, May 1995.
21. Toolbook MultiMedia Chemistry Modules as Student Review Resources, Worcester Polytechnic Institute, October 19, 1995.
22. Ordered Conformations in Bis(Amino Acid) Derivatives of 1,1'-Ferrocenedicarboxylic Acid, R.S. Herrick, R.M. Jarret, T.P. Curran, D.R. Dragoli, M.B. Flaherty, S.B. Lindyberg, L.C. Thornton, Conference on Supramolecular Chemistry, Wichita State University, May 29-31, 1996.
23. Toolbook MultiMedia Chemistry Modules as Student Review Resources, R.S. Herrick and R.M. Jarret, Kansas State University, May 27-28, 1996.
24. Descriptive Chemistry in the General Chemistry Course, R.S. Herrick, 14th Biennial Conference on Chemical Education, Clemson University, August 4-8, 1996.
25. Utilizing MultiMedia Software as Student Review Resources, R.M. Jarret, R.S. Herrick and A. Deckert, American Chemical Society National Meeting, Orlando, FL, August 24-26, 1996.
26. Ordered Conformations in Bis(Amino Acid) Derivatives of 1,1'-Ferrocenedicarboxylic Acid, R.S. Herrick, R.M. Jarret, T.P. Curran, D.R. Dragoli, M.B. Flaherty, S.B. Lindyberg and L.C. Thornton, American Chemical Society National Meeting, Orlando, FL, August 24-26, 1996.
27. Reflections on Discovering Chemistry at Holy Cross, Richard S. Herrick, The General Chemistry Course Driven by the Laboratory, Worcester Polytechnic Institute, October 19, 1996.
28. Multimedia Software to Assist Students Studying Crystal Lattices, Richard S. Herrick, American Chemical Society National Meeting, San Francisco, CA, April 12-17, 1997.
29. Descriptive Chemistry in the General Chemistry Laboratory, Richard S. Herrick, American Chemical Society National Meeting, San Francisco, CA, April 12-17, 1997.
30. Integrated Laboratories in the General and Organic Discovery Curriculum at Holy Cross. General Principles, R.S. Herrick, R.M. Jarret, P.D. McMaster, R.W. Ricci, 5th North American Chemical Congress, Cancun, Mexico, November 15, 1997.
31. Integrated Laboratories in the General and Organic Discovery Curriculum at Holy Cross. Specific Examples, R.M. Jarret, R.S. Herrick, P.D. McMaster, R.W. Ricci, 5th North American Chemical Congress, Cancun, Mexico, November 15, 1997.
32. Reflections on 10 Years of Discovery Chemistry at Holy Cross. Richard S. Herrick, Department of Chemistry, College of the Holy Cross, July 1998, Puerto Rico
33. Discovery from Verification: How to Convert your Favorite Experiment, R.S. Herrick and N. Kildahl, Aug. 9-13, 1998, BCCE, Waterloo Ontario, Canada
34. Using Data Pooling to Measure the Density of Sodas; An Introductory Discovery Experiment. Richard S. Herrick and Lisa P. Nestor, August, 1998, Boston, MA
35. Preparation of Bioorganometallic Group 6 Compounds with α -Diimine Ligands. Richard S. Herrick, Kimberly L. Houde, Leonard P. Kiczek and Jacob S. McDowell, American Chemical Society National Meeting, August, 1998, Boston, MA
36. Discovery Chemistry at Holy Cross, New Traditions Workshop, Gainesville, FL, Oct. 24-25, 1998.
37. Discovery Chemistry at Holy Cross, New Traditions Workshop, Texas A&M, College Station, Texas, May 21-22, 1999.
38. Discovery Chemistry at Holy Cross, New Traditions Workshop, Norfolk State University, Norfolk, VA, Oct. 8-9, 1999.
39. Studies of the Preparation of Tungsten Schiff-Base Ligands Containing an Amino Acid, Richard S. Herrick, American Chemical Society National Meeting, March 2000.
40. "Conversion of Verification Laboratory Experiments to Discovery Experiments, American Chemical Society National Meeting, August 2001.
41. Electrochemistry Discovery Exercises at Holy Cross, Richard S. Herrick, Lisa P. Nestor, Mauri A. Ditzler, American Chemical Society National Meeting, April 2002.

42. Discovery Chemistry at Holy Cross, New Traditions Workshop, U. of Arizona, April 26-27, 2002.
43. Bioorganometallic Chemistry: A New Frontier, Department of Chemistry, Clark University, March 30, 2003
44. "Bioorganometallic Chemistry: A New Frontier" Department of Chemistry, University of Akron, November 11, 2003
45. Discovery Chemistry at Holy Cross, New Traditions Workshop, U. of Arkansas-Little Rock, February 6-7, 2004.
46. Iwona Wrona,* Naomi McMicken,* Richard S. Herrick and Christopher J. Ziegler, Preparation and characterization of organometallic rhenium compounds with esters of amino acids. Second International Symposium on Bioorganometallic Chemistry, July 14-17, 2004, Zurich, Switzerland.
47. Discovery Chemistry at Holy Cross, New Traditions Workshop, North Carolina State Univ. October 8-9, 2004
48. Preparation of rhenium (I) compounds containing bidentate ligands with novel amino ester derivatized diimine ligands prepared from imidazole-2-carboxaldehyde, Richard S. Herrick, American Chemical Society National Meeting, San Diego, CA, March 2005.

Guided Inquiry Experiments Developed for General and Physical Chemistry

1. Measurement (The Density of Coke and Diet Coke Experiment)
2. Synthesis of Nickel Amine Compounds
3. Atomic Spectroscopy
4. Descriptive Chemistry
5. Introduction to Kinetics
6. Symmetry Applications of Group Theory

ToolBook Modules Authored

1. "Measurement" (The Pennies Experiment), Summer 1995, g:\chem on 'Worcester\apps\labs\atoms and molecules\modules\measurement\penny97.exe.
2. "Elemental Analysis," Summer 1995, g:\chem on 'Worcester\apps\labs\atoms and molecules\modules\empirical formula\elem98.exe.
3. "Descriptive Chemistry," Summer 1996, g:\chem on 'Worcester\apps\labs\atoms and molecules\modules\descriptive chem\desc98.exe
4. "Atomic Spectroscopy," Summer 1996, g:\chem on 'Worcester\apps\labs\atoms and molecules\modules\atomic spectroscopy\atomic98.exe.
5. "Ionic Bonding," Summer 1996, g:\chem on 'Worcester\apps\labs\atoms and molecules\modules\ionic structure\ionic98.exe
6. "Synthesis and Analysis of Nickel Amine Compounds," Summer 1997, g:\chem on 'Worcester\apps\labs\atoms and molecules\modules\nickel synthesis\nickel98.exe.
7. "Measurement," (The Density of Coke and Diet Coke), Summer 1997, g:\chem on 'Worcester\apps\labs\atoms and molecules\modules\measurement\coke98.exe.

Web Sites Created

1. "Discovery Lab Conversion," Created for workshop presented at BCCE Aug 9 - 13, 1998. <http://science.holycross.edu/departments/chemistry/rherrick/bcce.html>
2. "Atoms and Molecules Laboratory Review" Modules created for review of all experiments in Atoms and Molecules (Chem 101), <http://www.holycross.edu/departments/chemistry/rherrick/A&M/index.html>

Professional Memberships

American Chemical Society
Sigma Xi
Phi Beta Kappa
Council on Undergraduate Research

Honors and Awards

Sigma Xi (1978)
Robert M. Fuller Senior Chemistry Award (1978)

Service

College Committees

Committee on Research and Publication: 1985-88, Chair 1987-88
Black Student Advising Committee: 1985-91
Ad Hoc Committee on the Evaluation and Promotion of Probationary Faculty: 1987-88
Athletic Council: 1986-89
Admissions Committee: 1988-91
Crompton Gold Metal Committee: 1985-89
Phi Beta Kappa: President 1986-88
Committee on Academic Standing: 1991-94, Chair 1993-94, 1996-98, Chair 1997-98
Curriculum Committee: Spring 1994
Board of Trustees Investment Subcommittee Fall 1999 –
Intellectual Property Committee: Fall 1999 – 2001
Academic Standing Committee; Fall 2000 –
Committee on Tenure and Promotion; 2000-2001
Curriculum Committee; Fall 2001
Athletic Council; Fall 2001 – Chair 2001-2002, 2002-2003
Academic Affairs Council: 2002 – 2003, Spring 2004

Chair, Department of Chemistry: 1993 - 1996
Acting Chair, Department of Chemistry: 1999 - 2000
NECUSE: 1996-1999, Executive Board Member, 1996-97

Cross and Crucible Moderator: 1984-90
Graduate Studies Committee: 1986-90
Chemical Manufacturer's Award Nomination

Oversaw normal departmental operations as Chair (Fall 1993 – Spring 1996) and Acting Chair (Fall 1999 – Spring 2000).

Wrote a successful proposal to get a \$50,000 GC-MS from the College Kresge funds. 1999

