

**Henry J. Tracy**  
**Curriculum Vitae**

University of Southern Maine  
Department of Chemistry  
P.O. Box 9300  
Portland, ME 04104-9300

EDUCATION	<p><b>Massachusetts Institute of Technology</b> Ph.D. in Inorganic Chemistry Professor Dietmar Seyferth, Thesis Advisor "Preparation of Early Transition Metal Carbide/Silicon Carbide Ceramics by a Polymeric Precursor Route," Thesis Title</p> <p><b>Bowdoin College</b> A.B. in Chemistry with High Honors</p>	<p>Cambridge, MA September 1990</p> <p>Brunswick, ME May 1983</p>
CURRENT POSITION	<p><b>University of Southern Maine</b> <i>Professor and Chair of Chemistry</i></p> <p>Teaching physical chemistry, general chemistry, chemistry for the health sciences, instrumental analysis, and inorganic chemistry. Supervising undergraduate research in organometallic synthesis.</p>	<p>Portland, ME</p>

**PUBLICATIONS**

Lu, H.; Yson, R.; Ford, J.; Tracy, H. J.; Carrier, A. B.; Keller, A.; Mullin, J. L.; Poissan, M. J.; Sawan, S.; Patterson, H. H. "Tunable Energy Transfer from  $d^{10}$  Heterobimetallic Dicyamide(I) Donor Ions to Terbium(III) Acceptor Ions in Luminescent  $Tb[Ag_xAu_{1-x}(CN)_2]_3$  ( $x = 0 \rightarrow 1$ )," *Chem. Phys. Lett.* **2007**, *443*, 55-60.

Mullin, J. L.; Tracy, H. J.; Ford, J. R.; Keenan, S. R.; Fridman, F., "Characteristics of Aggregation Induced Emission in 1,1-Dimethyl,2,3,4,5-tetraphenyl and 1,1,2,3,4,5-Hexaphenyl Siloles and Germoles," *J. Inorg. Organomet. Polym. Mater.* **2007**, *17*, 201-213.

Newton, T. A.; Prudente, C. K.; Tracy, H. J. "A Research Based Laboratory Curriculum in Organic Chemistry," *J. Chem. Educ.* **2006**, *83*, 1844-1849.

Tracy, H. J.; Mullin, J. L.; Klooster, W. T.; Martin, J. A.; Haug, J.; Wallace, S.; Rudloe, I.; Watts, K. "Enhanced Photoluminescence from Group 14 Metalloles in Aggregated and Solid Solutions," *Inorg. Chem.* **2005**, *44*, 2003-2011.

Gordon, N., Newton, T. A., Rhodes, G., Ricci, J. S., Stebbins, R., and Tracy, H. J. "Writing and Computing Across the USM Chemistry Curriculum," *J.Chem.Educ.* **2001**, *78*, 53.

Ferman, J.; Kakareka, J.; Klooster, W.; Mullin, J.; Quattrucci, J.; Ricci, J.; Tracy, H.; Vining W.; Wallace, S. "Electrochemical and Photophysical Properties of a Series of Group 14 Metalloles," *Inorg. Chem.* **1999**, *38*, 2464.

Tracy, H. J. "A One-Semester General, Organic, and Biochemistry Course Format Linked by a Molecular Model Project," *J. Chem. Educ.* **1998**, *75*, 1442.

Collins, C.; Langevin, P.; Tracy, H., "Chemistry Abounds: An Exciting Chemistry Demonstration Program for Elementary Schools," *J. Chem. Educ.* **1995**, *72*, 1111.

Seyferth, D.; Tracy, H.; Workman, D.; Bryson, N., "Ceramic Synthesis by Pyrolysis of Metal-Containing Polymer and Metal," July, **1994**, U.S. Patent No. 5,332,701.

Seyferth, D.; Tracy, H.; Robison, J., "Preparation of Silicon Carbide Ceramics from the Modification of an Si-H Containing Polysilane," April, **1993**, U.S. Patent No. 5,204,380.

Seyferth, D.; Wood, T.; Tracy, H.; Robison, J., "Near-stoichiometric Silicon Carbide from an Economical Polysilane Precursor," *J. Am. Ceram. Soc.* **1992**, *75*, 1300.

Seyferth, D.; Lang, H.; Sobon, C.; Borm, J.; Tracy, H.; Bryson, N., "Chemical Modification of Preceramic Polymers: Their Reactions with Transition Metal Complexes and Transition Metal Powders," *J. Inorg. Organomet. Polym.* **1992**, *2*, 59.

Seyferth, D.; Lang, H.; Tracy, H.; Sobon, C.; Borm, "Chemical Modification of Preceramic Polymers: Some Examples from Silicon Chemistry," *Polym. Prepr. (Am. Chem. Soc., Div. Polym. Chem.)* **1991**, *32*, 581.

Heuer, W.B.; Tollen, M.D.; Rodman, G.S.; Herbert, E.J.; Tracy, H.J.; Nagle, J.K. "Electron-Transfer Reactions and Luminescent Quantum Yield of the Triplet Excited State of Tetrakis[ $\mu$ -diphosphito(2-)-P,P']diplatinatate(II)," *J. Am. Chem. Soc.* **1984**, *106*, 1163-1164.

#### FUNDED GRANTS

September 2008 NSF CHE – Inorganic Chemistry: Bioinorganic/Supramolecular/Main Group/Materials, \$363,034 for "RUI: A Collaborative Investigation into the Aggregate-Induced Emission Phenomenon in Group 14 Metallole and Metallole-like Molecules." Funded at \$360,000.

April 2008 USM Faculty Technology Grant, \$1,250 for ChemSketch a sophisticated NMR simulation application for use in the chemistry curriculum. Funded in full.

May 2007 Maine Space Grant Consortium, \$45,000 per year for 2 years for "Experimental Investigation, Modeling and Development of MEMS and CNT-Based Sensors and Integrated Sensor Arrays."

April 2007 USM Summer Undergraduate Research Fellowship for Kris Fecteau, "Preparation and Luminescence of Naphthylated Metalloles and their value as Biological Probes," "\$3,000. Funded in full.

February 2007 USM Faculty Senate Research Grant, \$2,975 for "Fluorescent Metalloles as Biological Probes and Photonic Devices."

May 2006 NSF EAST Summer Undergraduate Research Fellowship for Fred Fridman, "Restricted Rotations: A Hypothesis for Enhanced Photoluminescence from Group 14 Metalloles in Aggregated and Cold Temperature Solutions," "\$4,500. Funded in full.

May 2006 USM Summer Undergraduate Research Fellowship for Trevor Bozeman, "The Synthesis and Isolation of a Subset of Aryl Substituted Group 14 Metalloles," "\$3,000. Funded in full.

May 2005 USM Summer Undergraduate Research Fellowship for Aaron Keller, "Tunable Luminescent Lanthanide Ion–Silver/Gold Dicyanides," "\$3,000. Funded in full.

May 2004, USM College of Arts & Sciences Research and Creative Activity Fund, \$750 for "ADF Calculations of Luminescent Inorganic Systems."

February 2003, USM Faculty Senate Research Grant, \$1,700 for "Luminescence in Inorganic and Organometallic Systems."

April 2002, American Chemical Society Petroleum Research Fund Summer Research Fellowship, "Metal-Metal Bonded Exciplexes and Their Tunability for Excited State Energy Transfer in  $d^{10}$  Systems," \$8,000 for summer salary and supplies.

August 2001, National Science Foundation Major Research Infrastructure, "Acquisition of a CCD Single Crystal X-ray Diffraction System for a Partnership of Maine Institutions," \$257,216.

September 2000, National Science Foundation Course, Curriculum, and Laboratory Improvement Adaptation and Implementation Grant, "A Research-Based Organic Chemistry Laboratory Curriculum Employing Combinatorial Techniques," \$116,000. H. Tracy co-principal investigator.

May 2000, USM Faculty Summer Research Award, "Fluorescence Anisotropy Measurements of Metallole-DNA Interactions," \$9,420 + two months summer salary for H. Tracy.

April 1999, USM Faculty Summer Research Awards, "Binding Studies of Fluorescent Probes with DNA," \$7,350 + two months summer salary for H. Tracy. H. Tracy co-principal investigator with Dr. N. Gordon.

November 1998, USM College of Arts and Sciences, \$1,500 for "Silicon-Based Fluorescent Labels for Immunoassays."

May 1997, Maine Science and Technology Foundation's Maine Space Grant Consortium, \$2,000 for "Syntheses and Characterization of Organometallic Monomers and Polymeric Precursors to Silicon Carbide Ceramics: An Undergraduate Summer Research Proposal."

February 1997, Office of Science and Technology Infrastructure, National Science Foundation, \$110,000 for "Acquisition of a 400 MHz Nuclear Magnetic Resonance Spectrometer."

May 1996, USM Faculty Senate Research Grant, \$1,174 for "Metallacyclopentadiene Research II."

March 1996, Maine Mathematics and Science Alliance, \$90,158 for the Southern Maine Science and Mathematics Academy 1996-1997.

January 1995, Maine State Department of Education, \$28,240 for "Improving Mathematics and Science Education."

January 1995, USM Faculty Senate Research Grant, \$3,000 for "The Synthesis and Characterization of a Series of Luminescent Metallacyclopentadienes."

August 1994, USM Office of the Provost, \$2,000 for "Chemistry Abounds!" development of high school program.

October 1994, Project Science Literacy, \$2,000 for a Minigrant Program for ACS Local Sections entitled "Chemistry Abounds! A Portland Educational Outreach Program."

#### PRESENTATIONS (Undergraduates are **bold**, presenters are underlined, \* indicates an invited talk)

(85) March 2009, **Bozeman, T.; Woodall, D.; Orlando, A.; Faller, C.; Booth, A.**; Ford, J.; Prudenté, C.; Tracy, H.; Mullin, J.; Benfaremo, N. "Synthesis and Luminescence Characteristics of Toly-substituted Siloles," at the 238<sup>th</sup> American Chemical Society National Meeting, Salt Lake City, UT.

(84) March 2009, Gjick, E.; Ford, J.; Prudenté, C.; Tracy, H.; Mullin, J.; Benfaremo, N. "Progress Towards the Synthesis and Spectral Characterization of Group 14 Metallafluorenes," at the 238<sup>th</sup> American Chemical Society National Meeting, Salt Lake City, UT.

(83) March 2009, Griffin, R.; Ford, J.; Prudenté, C.; Tracy, H.; Mullin, J.; Benfaremo, N. "Thin-Film Photoluminescence and Electroluminescence Investigations of Group 14 Metalloles," at the 238<sup>th</sup> American Chemical Society National Meeting, Salt Lake City, UT.

(82) April 2008, Welton, S.; Cawood, K.; Lawler, J.; Tracy, H. "Chemistry Laboratory Research Curriculum: Synthesis and Characterization of a Luminescent Group 14 Metallole," at Thinking Matters, USM, Portland, ME.

(81) April 2008, Atwood, S.; Peterson, E.; Tracy, H. "Chemistry Laboratory Research Curriculum: Fabrication of Thin Film Electroluminescent Devices," at Thinking Matters, USM, Portland, ME.

(80) April 2008, Fecteau, K.; Bozeman, T.; Tracy, H.; Ford, J.; Mullin, J.; Benfaremo, N. "Preparation and Luminescence of Naphthylated Metalloles," at Thinking Matters, USM, Portland, ME.

(79) March 2008, **Fecteau, K.; Bozeman, T.**; Tracy, H.; Ford, J.; Mullin, J.; Benfaremo, N. “Novel Naphthyl-Substituted Siloles: Synthesis, Characterization, and Photoluminescent Properties,” at the 236<sup>th</sup> American Chemical Society National Meeting, New Orleans, LA.

(78) March 2008, **Ford, J.; Carrier, A.**; Tracy, H.; Mullin, J. “Energy Transfer in Dry Grind Mixtures of Terbium-Mixed Metal Dicyanides,” at the 236<sup>th</sup> American Chemical Society National Meeting, New Orleans, LA.

(77) August 2007, **Bozeman, T.; Tracy, H. J.**; Ford, J.; Benfaremo, N.; Mullin, J. L.; **Woodall, D. L.** “Novel Silole Derivatives; Synthesis, Characterization, and Photoluminescence Properties,” at the 234<sup>th</sup> American Chemical Society National Meeting, Boston, MA.

(76) April 2007, **Bozeman, T.**, Tracy, H. J. “New Siloles and Future Applications,” Thinking Matters, USM, Portland, ME.

(75) September 2006, **Tracy, H., Mullin, J., Ford, J., Johnson, A., Keller, A.**, “Resonance Energy Transfer and Tunable Photoluminescence of Terbium(III) Heterobimetallic Dicyanoaurate(I)-Dicyanoargenate(I) Powders,” at the 232<sup>nd</sup> American Chemical Society National Meeting, San Francisco, CA.

(74) September 2006, **Tracy, H., Mullin, J., Ford, J., Fridman, F.**, “Exploring the Mechanism of Aggregation-Induced Enhancement of Luminescence in Group 14 Metalloles,” at the 232<sup>nd</sup> American Chemical Society National Meeting, San Francisco, CA.

(73) April 2006, **Johnson, A.**; Ford, J.; Tracy, H., “Energy Transfer in Lanthanide Gold/Silver Dicyanide Powders,” Thinking Matters, USM, Portland, ME.

(72) April 2006, **Bresler, A.; Willette, G.; D’Alessandro, D.**; Tracy, H., “Preparation and Characterization of Ferrocene – A Physical Chemistry Experiment,” Thinking Matters, USM, Portland, ME.

(71) April 2006, **Flood, V.**; Tracy, H., “Toward the Synthesis of a Fluorescent Probe for Biological Molecules,” Thinking Matters, USM, Portland, ME.

(70) April 2006, **D’Alessandro, D.**; Tracy, H., “Vibrational-Rotational Spectra of HCl,” Thinking Matters, USM, Portland, ME.

(69) \*August 2005, Tracy, H., **Newton, T. A.**, “Borrowing a Page from the Combinatorial Chemist: A Model for Research-Based Organic Chemistry Laboratory Instruction,” at the 230<sup>nd</sup> American Chemical Society National Meeting, Washington, DC.

(68) April 2005, **Keller, A.**; Tracy, H., “Photoluminescence of Rare Earth Silver/Gold Dicyanide Powders,” Thinking Matters, USM, Portland, ME.

(67) April 2005, **Fridman, F.**; Tracy, H.; Mullin, J., “Restricted Rotation at Low Temperatures – NMR Studies of Group 14 Metalloles,” Thinking Matters, USM, Portland, ME.

(66) April 2005, **Fitch, E.**; Tracy, H., “Synthesis of 1,1-Dimethoxy-2,3,4,5-Tetraphenylmetallocyclopentadienes,” Thinking Matters, USM, Portland, ME.

(65) March 2005, **Mullin, J.**; Tracy, H.; **Poisson, M.**, “Composition-dependent excitation and photoemission Tunability in a Series of Lanthanide(III) Ion Dicyanoaurate(I) and Dicyanoargenate(I) Powders Suspended in Room Temperature Glasses,” at the 229<sup>th</sup> American Chemical Society National Meeting, San Diego, CA.

- (64) March 2005, **Keller, A.**; Tracy, H.; Mullin, J.; Ford, J., "Photoluminescence of Rare Earth Silver/Gold Dicyanide Powders: The Case for Tunable Energy Transfer from  $\text{Ag}/\text{Au}(\text{CN})_2^-$  to Rare Earth Cation," at the 229<sup>th</sup> American Chemical Society National Meeting, San Diego, CA.
- (63) March 2005, **Fitch, E.**; Tracy, H.; Mullin, J., "Synthesis and Characterization of 1,1-Dimethoxy-2,3,4,5-Tetraphenylmetallocyclopentadienes," at the 229<sup>th</sup> American Chemical Society National Meeting, San Diego, CA.
- (62) March 2005, **Fridman, F.**; Tracy, H.; Mullin, J., "Low Temperature NMR Studies of Group 14 Metalloles," at the 229<sup>th</sup> American Chemical Society National Meeting, San Diego, CA.
- (61) \*October 2004, **Tracy, H., Newton, T.**, "Matter and Light: The Structure of Molecules," Osher Lifelong Learning Institution, USM, Portland, ME.
- (60) April 2004, **Prevost, C.; Baker, M.**; Ford, J.; Tracy, H., "Russell-Sanders Term Symbol Analysis of Visible Transitions in Lanthanide(III) compounds," Thinking Matters, USM, Portland, ME.
- (59) April 2004, **Anderson, K.; Fitch, E.; Than, P.**; Ford, J.; Tracy, H., "Energy Transfer in Lanthanide Gold/Silver Dicyanide Powders," Thinking Matters, USM, Portland, ME.
- (58) April 2004, **Tracy, H., Mullin, J., Martin, J., Klooster, W., and Haug, J.**, "Enhanced Photoluminescence of a Series of Group 14 Metalloles in Fluid and Aggregated States," Thinking Matters, USM, Portland, ME.
- (57) March 2004, **Tracy, H., Mullin, J., Patterson, H., Colis, J., and Haug, J.**, "Tunable photoluminescence and energy transfer of terbium(III) dicyanoaurate(I) and dicyanoargentate(I) powders," at the 227<sup>th</sup> American Chemical Society National Meeting, Anaheim, CA.
- (56) March 2004, **Tracy, H., Mullin, J., Martin, J., Klooster, W., and Haug, J.**, "Photoluminescence characteristics of a series of Group 14 metalloles in fluid solution, solid phase, and aggregated states," at the 227<sup>th</sup> American Chemical Society National Meeting, Anaheim, CA.
- (55) \*March 2004, **Tracy, H.** "Teaching Chemistry by Doing Chemistry," at the first Provost's Fellowship for Teaching Excellence, USM, Portland, ME.
- (54) September 2003, **Tracy, H., Mullin, J., Patterson, H., Colis, J., and Haug, J.**, "Energy transfer and photoemission tunability in terbium(III) dicyanoaurate(I) and dicyanoargentate(I) powders," at the 226<sup>th</sup> American Chemical Society National Meeting, New York, NY.
- (53) September 2003, **Tracy, H., Odendaal, A., and Mullin, J.**, "Mass Spectroscopy Comparisons of Group 14 and Group 15 Metalloles," at the 226<sup>th</sup> American Chemical Society National Meeting, New York, NY.
- (52) September 2003, **Tracy, H., Newton, T., and Prudente, C.**, "Expanding a Research-Based Organic Chemistry Laboratory Curriculum," at the 226<sup>th</sup> American Chemical Society National Meeting, New York, NY.

- (51) September 2003, Tracy, H. and Ford, J., "Group Work for the Masses - Increasing Student Engagement in Large Lecture Halls," at the 226<sup>th</sup> American Chemical Society National Meeting, New York, NY.
- (50) May 2003, Tracy, H., "Results of Attempting a Guided Inquiry General Chemistry Lecture Format," at the Maine Mathematics and Science Teaching Excellence Collaborative Mini-Conference, Portland, ME.
- (49) April 2003, Prevost, C., Tracy, H., and Mullin, J., "Luminescent Organometallic Metalloles: Substitution Effects on Fluorescence," at the 2003 USM Poster Day, Gorham, ME.
- (48) April 2003, Odendaal, A., Tracy, H., and Mullin, J., "Mass Spectral Analyses and Fragment Pattern Comparison of Group 14 and Group 15 Metalloles," at the 2003 USM Poster Day, Gorham, ME.
- (47) March 2003, Martin, J., Haug, J., Mullin, J., and Tracy, H., "Aggregation-induced Enhancement of Photoluminescence in a Series of Group-14 Metalloles," at the 225<sup>th</sup> American Chemical Society National Meeting, New Orleans, LA.
- (46) January 2003, Ford, J. and Tracy, H., "Group Work vs. Lecture – An Experiment in General Chemistry," Maine Mathematics and Science Teaching Excellence Collaborative, Augusta, ME.
- (45) \*August 2002, Tracy, H. J. and Newton, T. N. "A Research-Based Organic Chemistry Laboratory Curriculum Employing Combinatorial Techniques," at the 224<sup>st</sup> American Chemical Society National Meeting, Boston, MA.
- (44) July 2002, Tracy, H. J. and Mullin, J. L. "The Surprising Luminescence Behavior of a Series of Group-14 Metalloles," 17<sup>th</sup> Biennial Conference on Chemical Education, Western Washington University, Bellingham, WA.
- (43) April 2002, Tracy, H. J. and Mullin, J. L. "Solvent Effects on the Photophysical Behavior of a Series of Luminescent Group-14 Metalloles," at the 223<sup>rd</sup> American Chemical Society National Meeting, Orlando, FL.
- (42) April 2002, T. A. Newton and H. J. Tracy, "Incorporating Basic Research into the Undergraduate Curriculum: A Combinatorial Approach to the Synthesis and Characterization of a Series of Metalloles", University of Otago, Dunedi, New Zealand.
- (41) April 2002, H. Tracy, "Fluorescence Spectroscopy," Scholarship and Creativity Fair, University of Southern Maine, Portland, ME.
- (40) April 2002, Tracy, H. J. and Newton, T. A. "Basic Research in the Organic Chemistry Laboratory: Evolution of an Idea," at the 223<sup>rd</sup> American Chemical Society National Meeting, Orlando, FL.
- (39) March 2002, T. A. Newton and H. J. Tracy "Incorporating Basic Research into the Undergraduate Curriculum: A Combinatorial Approach to the Synthesis and Characterization of a Series of Metalloles", University of Canterbury, Christchurch, New Zealand.

(38) June 2001, Tracy, H. J. and Mullin, J. L., "Luminescent Group-14 Metalloles: Stepwise Syntheses of Functionalized Metalloles," 30<sup>th</sup> American Chemical Society Northeast Regional Meeting, University of New Hampshire, Durham, NH.

(37) April 2001, Henry Tracy and Jerome Mullin, "Photochemical Behavior of Group-14 Metalloles," at the 221<sup>st</sup> American Chemical Society National Meeting, Division of Inorganic Chemistry, San Diego, CA.

(36) April 2001, Thomas Newton and Henry Tracy, "Combinatorial Chemistry: Combining Research and Teaching in the Organic Chemistry Laboratory," at the 221<sup>st</sup> American Chemical Society National Meeting, Division of Chemical Education, San Diego, CA.

(35) March 2000, Henry Tracy, Jerome Mullin, and Isaac Rudloe, "Pentaphenylphosphole: Spectroscopic and Electrochemical Studies," 219<sup>th</sup> American Chemical Society National Meeting, Division of Inorganic Chemistry, San Francisco, CA.

(34) March 2000, Thomas A. Newton and Henry Tracy, "Research-Based Organic Chemistry Laboratory Using Combinatorial Chemistry," 219<sup>th</sup> American Chemical Society National Meeting, Division of Chemical Education Chemistry, San Francisco, CA.

(33) March 2000, Scott Sweeney, Thomas A. Newton, Jerome Mullin, and Henry Tracy, "Synthesis of a Toluene-substituted Metallole for Use as a Fluorescent Probe," 219<sup>th</sup> American Chemical Society National Meeting, Division of Chemical Education Chemistry, San Francisco, CA.

(32) March 2000, Scott Sweeney, Aaron Wilson, Maria Mancini, Ian Paquette, Kimberley Fantasia, Beverley Valeriani, Jerome Mullin, and Henry Tracy, "Unique Storytelling/Demonstration Outreach Activity Developed and Presented Collaboratively By the Chemistry Clubs at Two Universities," 219<sup>th</sup> American Chemical Society National Meeting, Division of Chemical Education Chemistry, San Francisco, CA.

(31) \*November 1999, Henry J. Tracy, "Structural Elucidation of Metalloles Using 119/117Sn-13C Coupling in 13C NMR," University of New Hampshire, Durham, NH.

(30) April 1999, Henry Tracy, "Good Chemistry: Learning Goes both Ways When USM Students Perform with and for the Community," Center for Teaching program, USM.

(29) March 1999, Kimerley A. Watts, Michelle T. Pahl, Mary B. Suderley, Sonya Hawkins, Scott Sweeney, Danielle L. DeGraw, Matthew A. Wright, Isaac J. Rudloe, and Henry Tracy, "Color, Lights, and Lasers: A Hands-on Outreach Program," 217<sup>th</sup> American Chemical Society National Meeting, Division of Chemical Education, Anaheim, CA.

(28) March 1999, Isaac J. Rudloe, Henry Tracy, John S. Ricci, Jerome Mullin, and Wim Klooster, "X-Ray Crystal Structure and Luminescence Quenching Studies of Hexaphenylgermole," 217<sup>th</sup> American Chemical Society National Meeting, Division of Chemical Education, Anaheim, CA.

(27) March 1999, Mary B. Suderley, Henry Tracy and Craig Seeley, "The ICP-MS for the Analysis of Trace Metals," 217<sup>th</sup> American Chemical Society National Meeting, Division of Chemical Education, Anaheim, CA.

(26) March 1999, **Matthew A. Wright**, Thomas Newton, Henry Tracy and Jerome Mullin, "Preparation of a Functionalized Metallole," 217<sup>th</sup> American Chemical Society National Meeting, Division of Chemical Education, Anaheim, CA.

(25) March 1999, Henry Tracy, **Matthew A. Wright**, and Jerome Mullin, "Mass Spectral Analyses of Group-14 Metalloles," 217<sup>th</sup> American Chemical Society National Meeting, Division of Inorganic Chemistry, Anaheim, CA.

(24) \*March 1999, Henry Tracy, "A Molecular Model Project Linking a One-Semester GOB Course," 217<sup>th</sup> American Chemical Society National Meeting, Division of Chemical Education, Anaheim, CA.

(23) August 1998, John Ricci, Henry Tracy and Wim Klooster, "X-Ray Structure of Hexaphenylstannole," American Crystallographic Association Annual Meeting, Arlington, VA.

(22) August 1998, Henry Tracy and **David Crockett**, "Chemistry Abounds: Outline and Assessment of an Ongoing Outreach Program Encompassing Grades K-12," 216<sup>th</sup> American Chemical Society National Meeting, Division of Chemical Education, Boston, MA.

(21) July 1998, Henry Tracy and Jerome Mullin, "13C NMR Assignments of Luminescent Group 14 Metalloles," 216<sup>th</sup> American Chemical Society National Meeting, Division of Inorganic Chemistry, Boston, MA.

(20) April 1998, **David Crockett** and Henry Tracy, "The Periodic Table Comes Alive: A USM Chemistry Club's Outreach Program," Maine Section of the American Chemical Society Research Symposium, University of New England, Biddeford, Maine.

(19) April 1998, **Scott Wellman** and Henry Tracy, "Synthesis and Characterization of Pentaphenylphosphole: A Luminescent Group 15 Metallole," Maine Section of the American Chemical Society Research Symposium, University of New England, Biddeford, Maine.

(18) April 1998, Henry Tracy, "Main Group Organometallic Photochemistry," Maine Section of the American Chemical Society Research Symposium, University of New England, Biddeford, Maine.

(17) \*March 1998, Henry Tracy, "Retention Initiatives in the Departments of Foreign Languages & Classics, Criminology, Chemistry, and Recreation & Leisure Studies," Center for Teaching program, USM.

(16) \*March 1998, Gale Rhodes and Henry Tracy, "Writing Across the Curriculum: A Look at the Chemistry Department's Program," Center for Teaching program, USM.

(15) \*October 1997, Henry Tracy, "Why Do Some Things Glow? Luminescent Metalloles," Bowdoin Science Symposium, Bowdoin College, Brunswick, Maine.

(14) September 1997, Henry Tracy, "Luminescence, Electrochemical and UV-VIS Spectroscopic Properties of Group 14 Metallacyclopentadienes," 214<sup>th</sup> American Chemical Society National Meeting, Division of Inorganic Chemistry, Las Vegas, Nevada.

(13) September 1997, Henry Tracy, "Integrating Outreach Demonstrations into Primary and Secondary School Curricula," 214th American Chemical Society National Meeting, Division of Inorganic Chemistry, Las Vegas, Nevada.

(12) June 1997, **David Crockett** and Henry J. Tracy, "Elements, Compounds and Reactivity: An Outreach Program for Middle School Audiences," 27th Northeast Regional Meeting of the American Chemical Society, Saratoga Springs, New York.

(11) April 1997, Henry J. Tracy and **David Crockett**, "Chemical Demonstration Outreach Programs Designed for Grade School Curricula," Undergraduate Research Symposium at Boston University, Boston, MA.

(10) \*March 1996, Henry J. Tracy, "Strategies for a Successful Student Affiliates Chapter," Conference for Officers of American Chemical Society Northeastern Local Sections, Portland Maine Marriott, South Portland, ME.

(9) \*March 1995, Henry J. Tracy, "Luminescent Metallacyclopentadienes: A Journey Down the Periodic Table," Chemistry Department Seminar Series, Bowdoin College, Brunswick, ME.

(8) \*February 1995, Henry J. Tracy, **Paul Langevin** and **Jennifer Blastow**, "Energizing Educators Evening!" Children's Museum of Maine Teachers Workshop, Portland, ME.

(7) \*November 1994, Henry J. Tracy, "Synthesis of Carbide Ceramics Using Polymer Precursor Routes," Physics Department Colloquium, University of Maine, Orono, ME.

(6) October 1994, Henry J. Tracy and Paul Langevin, "Chemistry Abounds! The USM Chemistry Club's Educational Outreach Program," American Chemical Society Maine Local Section Meeting in Minature, Colby College, Waterville, ME.

(5) October 1994, Henry J. Tracy and **Joseph Quattrucci**, "Synthesis and Characterization of a Series of Luminescent Metallacyclopentadienes," American Chemical Society Maine Local Section Meeting in Minature, Colby College, Waterville, ME.

(4) August 1994, Henry J. Tracy and **Joseph Quattrucci**, "Synthesis and Characterization of a Series of Luminescent Metallacyclopentadienes," 208th ACS National Meeting, Washington DC. .

(3) April 1994, Henry J. Tracy, **Joseph Quattrucci** and **John Lipert**, "Synthesis and Characterization of Group 14 Metallacyclopentadienes via a 1,4-Dilithiobutadiene Route," American Chemical Society Northeast Section Undergraduate Research Symposium, Boston University, Boston, MA.

(2) April 1993, Henry J. Tracy and **Diane Estrella**, "Synthesis of Strati-bis Porphyrins: Organometallic Synthesis and Characterization," American Chemical Society Maine Local Section Meeting, Colby College, Waterville, ME.

(1) \*February 1992, Henry J. Tracy, "New Materials Synthesized Through a Polymer Precursor Route," Chemistry Department Seminar, University of Maine, Orono, ME.

**SELECTED**      *Director and Participant, "Chemistry Abounds"*      1992-2000  
**COMMUNITY**      A USM Chemistry Club program of educational chemistry

<b>SERVICE</b>	demonstrations at local schools and the Children's Museum of Maine.	
	<i>Adjunct Faculty</i> , Maine Science and Mathematics Academy.	1996 & 1994
	A facet of the five-year federally funded Statewide Systematic Initiative in Mathematics and Science Education.	
<b>PROFESSIONAL AFFILIATIONS</b>	American Chemical Society, member divisions of Inorganic Chemistry and Chemical Education	1985-present
	Chair Maine Section	1997-2001
	National Chemistry Week Coordinator	1994-2001