

# CURRICULUM VITAE OF STEVEN T. FREY

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## Contact Information

- Skidmore College  
Department of Chemistry  
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## Education

- **Ph.D.** Chemistry, December 1993 (conferred May 1994), The Pennsylvania State University, University Park, PA, Dissertation Title: "An Investigation of the Structural and Spectroscopic Properties of Lanthanide (III) Complexes of Biological Relevance." Research Advisor: William DeW. Horrocks, Jr.
- **B.S.** Chemistry, May 1987, Ithaca College, Ithaca, NY.

## Professional Experience

- June 2003 - present: Associate Professor, Skidmore College
- Sept. 1997 - May 2003: Assistant Professor, Skidmore College
- Sept. 1996 - Aug. 1997: Visiting Assistant Professor, Skidmore College
- Sept. 1994 - Aug. 1996: Postdoctoral Fellow with Kenneth D. Karlin, Johns Hopkins University
- Jan. 1994 - Sept. 1994: Postdoctoral Fellow with William DeW. Horrocks, Jr., The Pennsylvania State University

## Courses Taught

- CH 101/103 Fundamentals of Chemistry with and without Lab
- CH 105 and 105H Chemical Principles I (regular and honors) lecture and lab
- CH 106 Chemical Principles II
- CH 107 Intensive General Chemistry lecture and lab
- CH 111/112 Environmental Chemistry with and without Lab
- CH 214 Descriptive Inorganic Chemistry lecture and lab
- CH 313 Inorganic Chemistry
- CH 315 Advanced Inorganic Chemistry
- CH 371/372 Research in Chemistry
- CH 377/378 Senior Seminar in Chemistry and Biochemistry
- ES 105 (formerly ES 101) Field Studies in Environmental Science and lab
- LSI Liberal Studies I

## Committees

- Education Committee of the Eastern NY Section of the American Chemical Society, F'97 to S'02
- Self-Determined Major Subcommittee of the Curriculum Comm., F'97-F'00 (Chair F'98-F'00) and F'02 to present
- Environmental Studies Curriculum Development Study Group, Summer 1999
- Environmental Studies Future Workshop Group, Summer 2000
- Skidmore Microscopy Imaging Center Planning Committee, S'02 to present
- Departmental Assessment Committee, F'98 to present
- Departmental Safety Committee, F'00 to present
- Health Professions Advisory Committee, F'02 to present
- Faculty Development Committee, starting F'03

## Professional Associations and Memberships

- Reviewer for *Langmuir*, *The Journal of Inorganic Biochemistry*, and *The Chemical Educator*
- Project Kaleidoscope Faculty for the 21<sup>st</sup> Century, Class of 1997
- American Chemical Society
- Council on Undergraduate Research
- Association of Environmental Engineering and Science Professors

## Publications (\* indicates undergraduate collaborators)

- **Steven T. Frey**, William R. Moomaw, Judith A. Halstead, Caitlin W. Robinson\*, Kimberly A. Marsella, and John J. Thomas. "Home Energy Conservation Exercise," *Journal of Geoscience Education*, under review.
- **Steven T. Frey**, Benjamin M. Hutchins\*, Brian J. Anderson\*, Teresa K. Schreiber\*, and Michael E. Hagerman. "Catalytic Hydrolysis of 4-Nitrophenyl Phosphate by Lanthanum(III)-Hectorite," *Langmuir*, **2003**, *19*, 2188-2192.
- **Steven T. Frey** and Gregory L. Wrubel\*. "The Geometry of Crystalline Substances," *New York State Mathematics Teachers Journal*, **2003**, *53*, 7-11.
- **Steven T. Frey**, Narasappa, N. Murthy, Susan T. Weintraub, Laurence K. Thompson, and Kenneth D. Karlin. "Hydrolysis of Unactivated Esters and Hydration of Acetonitrile by a Hydroxo-Dicopper(II) Complex," *Inorganic Chemistry*, **1997**, *36*, 956-957.
- Michelle W. Frey, **Steven T. Frey**, William DeW. Horrocks, Jr., and Stephen J. Benkovic. "Elucidation of the Metal Binding Properties of the Klenow Fragment of *E. coli* Polymerase I and Bacteriophage T4 DNA Polymerase by Lanthanide(III) Luminescence Spectroscopy," *Chemistry and Biology*, **1996**, *3*, 393-403.
- **Steven T. Frey**, Helen J. Sun, Narasappa, N. Murthy, and Kenneth D. Karlin. "A New Trinuclear Copper Complex and its Reactions with Plasmid DNA," *Inorganica Chimica Acta*, **1996**, *242*, 329-338.
- **Steven T. Frey** and William DeW. Horrocks, Jr. "On Correlating the Frequency of the  ${}^7F_0 \rightarrow {}^5D_0$  Transition in  $\text{Eu}^{3+}$  Complexes with the Sum of 'Nephelauxetic Parameters' for all of the Coordinating Atoms," *Inorganica Chimica Acta*, **1995**, *229*, 383-390.
- **Steven T. Frey**, Meng Lian Gong, and William DeW. Horrocks, Jr. "Synergistic Coordination in Ternary Complexes of  $\text{Eu}^{3+}$  with Aromatic  $\beta$ -Diketone Ligands and 1,10-Phenanthroline," *Inorganic Chemistry*, **1994**, *33*, 3229-3234.
- **Steven T. Frey**, C. Allen Chang, Joan F. Carvalho, Aravamutham Varadarajan, Lisa M. Schultze, Kevin L. Pounds\*, and William DeW. Horrocks, Jr. "Characterization of Lanthanide Complexes with a Series of Amide-Based Macrocycles, Potential MRI Contrast Agents, Using  $\text{Eu}^{3+}$  Luminescence and Molecular Mechanics," *Inorganic Chemistry*, **1994**, *33*, 2882-2889.
- **Steven T. Frey** and William DeW. Horrocks, Jr. "Complexation, Luminescence, and Energy Transfer of  $\text{Ce}^{3+}$  with a Series of Multidentate Aminophosphonic Acids in Aqueous Solution," *Inorganic Chemistry*, **1990**, *30*, 1073-1079.

## Grants

- Rathmann Curriculum Development Grant, \$1,200, Summer 2003.
- Petroleum Research Fund Type B, \$49,770 three-year grant starting on January 1, 2002.
- Skidmore Faculty Development Grant, \$1,000 (January 1, 2001 to August 31, 2001)
- Skidmore Summer Collaborative Research Grants, total of \$19,300 (Summer 1997, 1998, and 2000)
- International Affairs/Environmental Studies Curriculum Development Grant, \$2,700 (1999)