

ROSLYN M. THEISEN

Visiting Assistant Professor
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EDUCATION

Ph.D., Inorganic Chemistry, December 2005
University of Washington, Seattle, WA

B.S., Chemistry, December 2000
University of Wisconsin, Madison, WI

EXPERIENCE

- 9/07- present Visiting Assistant Professor, **Western Washington University, Bellingham, WA**
Research Area: Synthesis and photochemical properties of flavothionato metal complexes.
Received internal funding and applied for external funding on original research topic.
Presented research poster at the Gordon Research Conference: Metals in Biology (January, 2008).
- 9/05-6/07 Lecturer, **Western Washington University, Bellingham, WA**
Full-time instructor in general chemistry.
- 7/01-9/05 Research Assistant, **University of Washington, Seattle, WA**
Research Advisor: Dr. Julia A. Kovacs
Research Topic: Synthesized multifunctionalized sulfur and nitrogen-containing organic molecules, thiolate-ligated iron(II) and low-spin iron(III) complexes, as synthetic models for the microbial enzymes Nitrile Hydratase and Superoxide Reductase.
- 09/99-12/00 Undergraduate Research Assistant, **University of Wisconsin, Madison, WI**
Research Advisor: Dr. Judith N. Burstyn
Research Topic: Synthesized macrocyclic ligands and the corresponding mononuclear and binuclear copper complexes to explore hydrolysis of phosphodiester and phosphotriesters.
- 5/99-8/99 Chemistry Intern, **Kimberly Clark Corporation, Neenah, WI**
Research and Development: Fiber Technology Group
Research Area: Developed methods to measure absorbance of fibers.

TEACHING & MENTORING EXPERIENCE

Lectureship Experience:

- 9/07-present **Visiting Assistant Professor**, Western Washington University
Courses Taught: General Chemistry III (Fall 2007 and Spring 2008), Advanced Inorganic Chemistry (Winter 2008), and Physical/Inorganic Chemistry Laboratory (Winter and Spring 2008)
Developed curriculum, instructed 100% of general chemistry and inorganic chemistry lectures, held office hours, constructed and graded all exams and quizzes.
Co-taught Physical/Inorganic laboratory, instructed 50% laboratory lectures, supervised advanced lab techniques and methods, held office hours, and graded laboratory reports.
- 9/05-6/07 **Lecturer**, Western Washington University
Courses Taught: General Chemistry I, II and III (Fall, Winter, and Spring 2005-2006 and 2006-2007)
Developed curriculum, instructed 100% of lectures, held office hours and review sessions, constructed and graded all exams and quizzes.

Research Mentor Experience:

- 9/07-present **Research Advisor**, Western Washington University
Supervised three undergraduate research students. Designed and directed students' lab work, edited research papers, oral presentations and research posters.
- 3/04-3/05 **Research Mentor**, University of Washington
Supervised one undergraduate research assistant in Dr. Julia A. Kovacs' Laboratory. Directed and designed student's lab work, edited a research paper, oral presentation and research poster.

Teaching Assistant Experience:

- 3/03-6/05 **Inorganic Chemistry Laboratory**, University of Washington (Spring 2003; Winter 2004 and Spring 2005)
Supervised advanced lab techniques and methods: inert atmospheres; kinetics measurements; and IR, ^1H and multinuclear NMR, electronic absorption spectroscopies. Instructed students to design new experiments and learn proper safety practices.
- 1/01-5/01 **General and Analytical Chemistry**, University of Wisconsin (Spring 2001)
Assisted in instruction of general chemistry lab and recitation sections with emphasis in analytical chemistry techniques.

PRESENTATIONS

Theisen, Roslyn M.; Korn, Joseph; Pierce, Phillip Synthesis and Photochemical Properties of Flavothionato Metal Complexes. Poster presented at the **Gordon Research Conference: Metals in Biology**, Ventura, California, January 27-31, 2008.

Theisen, Roslyn M. Seminar title: Synthetic Model Complexes for Cysteinate-Ligated Metalloenzymes. Invited seminar speaker at Department of Chemistry, **Western Washington University**, Bellingham, WA, February 9, 2007.

Theisen, Roslyn M.; Lugo-Mas, P.; Xu, L.; Kovacs, Julie A. Synthetic Analogue that Models the Local N₂S₃ Coordination Environment of Fe-Nitrile Hydratase. Presented at the 230th **ACS National Meeting**, Washington, DC, United States, August 28-September 1, 2005; oral presentation INOR 301.

Theisen, Roslyn M.; Nam, Elaine; Kovacs, Julie A. Investigation of the Proton-Dependent Mechanism of Superoxide Reduction By a Thiolate-Ligated Ferrous SOR Model. Poster presented at the **Graduate Research Seminar: Bioinorganic Chemistry Gordon Conference**, Ventura, CA, January 27-30, 2005.

Theisen, Roslyn M.; Shearer, Jason M.; Kovacs, Julie A. Investigation of the acid-base properties of the SOR model complex N₄SFe^{III}-OOH. Presented at the 227th **ACS National Meeting**, Anaheim, CA, United States, March 28-April 1, 2004; poster 681.

Theisen, R.; Xu, L.; Shearer, J.; Fitch, S.; Kovacs, J.A. Understanding the Mechanism of Superoxide Reductase (SOR) Catalyzed Superoxide Reduction. Poster presented at the **Graduate Research Seminar: Bioinorganic Chemistry Gordon Conference**, Ventura, CA, January 22-25, 2004.

PUBLICATIONS

Lugo-Mas, P.; **Theisen, R.M.**; Xu, L.; DiPasquale, A.; Kaminsky, W.; Kovacs, J.A. "A Synthetic Analogue of the Unmodified Form of NHase Reveals How Post-Translational Oxidation of the NHase Cysteinates Influence Function," *manuscript in preparation*, **2008**.

Schweitzer, D.; Taylor, W.D.; Lugo-Mas, P.; **Theisen, R.M.**; Xu, L.; Shearer, J.; Rittenberg, D.; Kaminsky, W.; Lovell, S.; Kovacs, J.A. "Correlation Between Local Coordination Environment, Spin-state, and Reactivity of Synthetic Nitrile Hydratase Analogues," *manuscript in preparation*, **2008**.

Theisen, R.M.; Kovacs, J.A. "The Role of Protons in Superoxide Reduction by a Superoxide Reductase Analogue." *Inorg. Chem.* **2005**, *44*, 1169-1171.

Theisen, R. M.; Shearer, J.; Kaminsky W.; Kovacs, J. A. "Steric and Electronic Control Over the Reactivity of a Thiolate-Ligated Fe(II) Complex with Dioxygen and Superoxide. Reversible μ -oxo Dimer Formation." *Inorg. Chem.* **2004**, *43*, 7682-7690.

Fitch, S.; **Theisen, R.**; Shearer, J.; Kitagawa, T.; Scarrow, R.; and Kovacs, J. "Understanding the Mechanism of Superoxide Reduction by the Non-Heme Iron Enzyme Superoxide Reductase (SOR) using a Synthetic Analogue Approach." *J. Inorg. Biochem.* **2003**, *96*, 23.

AWARDS AND AFFILIATION

Graduate School Fund for Excellence and Innovation: **Graduate Student Travel Award**, University of Washington, 1/05.

Hildale Undergraduate Research Award, University of Wisconsin-Madison, 4/00.

American Chemical Society, 9/01-present.