

STEVEN C. ENGERER

Associate Professor of Chemistry



Contact Information:

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Education:

- B.S. with High Honor, Chemistry, 1975, Michigan State University
- Ph.D. Inorganic Chemistry, 1982, University of Chicago
- Postdoc. University of Illinois, Chicago

Professional Societies:

- American Chemical Society
- Midwestern Association of Chemistry Teachers in Liberal Arts Colleges (MACTLAC)

Honors or Distinctions:

- Honors College, Michigan State University, 1971-1975
- Outstanding Senior Award, Michigan State University, 1975

Teaching specialties:

General Chemistry, Inorganic Chemistry

Research interests:

Synthetic organometallic chemistry, especially transition metal carbonyl compounds with amines or with alkenes or other pi-donor ligands. Use of computers in general chemistry laboratory for data acquisition and data analysis.

Recent Student Research Associates

Cathy Nelson, BS 2007 Brian Bock, BS 2005 Brian Linert, BS 2004 Sara Stellfox, BS 2003 Jessica Amrozowicz, BS 2000, PhD 2007, Washington University Zach Matson, BS 2000 Jon Seremet, BS 2000 Matt Beatty, BS 1999 Dave Mann, BS 1999 Erik Gustafson, BS 1998, PhD candidate, Purdue University Bradley Hooker, BS 1998 Andrea Engle, BS 1995 Deanne Goodenough, BS 1994, PhD 2000, University of Michigan Cameron Bobbett, BS 1993, MD, Medical University of South Carolina Adam Zabell, BS 1993, PhD 2000, Purdue University Warren Emery, BS 1992 Kurt Vagle, BS 1992 Brian Manzek, BS 1991 Kim Schwink, BS 1991, PhD 1995, Northeastern University Nathan Fackler, BS 1990, PhD 1995, Northwestern University Eric Bittner, BS 1988, PhD 1994, University of Chicago

Selected Publications:

S. C. Engerer and A. G. Cook. "The Blue Bottle Reaction as a General Chemistry Experiment on Reaction Mechanisms," *Journal of Chemical Education* 1999, 76, 1519-1520.

R. M. Moriarty, S. C. Engerer, O. Prakash, I. Prakash, U. S. Gill, W. A. Freeman, "Stereoselection in the Hypervalent Iodine Oxidation of Chromium Tricarbonyl Complexes of Benzocycloalkenones," *Journal of Organic Chemistry* 1987, 52, 153.

R. M. Moriarty, S. C. Engerer, O. Prakash, I. Prakash, U. S. Gill, W. A. Freeman, "Hypervalent Iodine Oxidation of Chromium Tricarbonyl Complexes of Benzocycloalkenones and Acetophenone," *Journal of the Chemical Society, Chemical Communications* 1985, 1715.

C. K. Law, R. M. Moriarty, R. S. Miller, S. C. Engerer, et. al., "Organic Azides as Jet Fuel Additives: Synthesis of Azides and Micro-Explosion Characteristics of Droplets," *Proceedings of the JANNAF Propulsion Meeting, New Orleans, LA, 7-9 February, 1984.*

W. J. Evans, I. Bloom, S. C. Engerer, "Catalytic Activation of Molecular Hydrogen in Alkyne Hydrogenation Reactions by Lanthanide Metal Vapor Reaction Products," *Journal of Catalysis* 1983, 84, 468.

W. J. Evans, K. M. Coleson, S. C. Engerer, "Reactivity of Lanthanide Metal Vapor with Unsaturated Hydrocarbons. Reactions with Ethene, Propene, and 1,2-Propadiene," *Inorganic Chemistry* 1981, 20, 4320.

W. J. Evans, S. C. Engerer, K. C. Coleson, "Reactivity of Lanthanide Metals with Unsaturated Hydrocarbons: Terminal Alkyne Reactions," *Journal of the American Chemical Society* 1981 103, 6672.

W. J. Evans, S. C. Engerer, P. A. Piliero, A. L. Wayda, "Organometallic Chemistry of the Lanthanides Under Reductive Conditions," *Fundamental Research in Homogeneous Catalysis*, 1979, 3, 941.

W. J. Evans, S. C. Engerer, P. A. Piliero, A. L. Wayda, "Homogeneous Catalytic Activation of Molecular Hydrogen by Lanthanide Metal Complexes," *Journal of the Chemical Society, Chemical Communications* 1979, 1007.

Department of Chemistry - Valparaiso University
W. J. Evans, S. C. Engerer, A. C. Neville, "Nonaqueous Reductive Lanthanide
Chemistry I: Reaction of Lanthanide Atoms with 1,3-Butadienes," *Journal of the
American Chemical Society* 1978, 100, 331.

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