

Curriculum Vitae

Bret R. Findley,
Department of Chemistry and Physics, Saint Michael's College,
1 Winooski Park, Colchester, VT 05439
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EDUCATION

Ph. D., Physical Chemistry, Dartmouth College, Hanover, NH **1998**

Dissertation Title: *Photo-Induced Free Ion Formation in Charge Transfer Complexes*

Advisor: Professor Charles L. Braun

B. A. cum laude, German and Chemistry, Willamette University, Salem, OR **1991**

PROFESSIONAL EXPERIENCE

Associate Professor, St. Michael's College, Colchester, VT **7/2008 to present**

Assistant Professor, St. Michael's College, Colchester, VT **7/2002 to 7/2008**

Visiting Assistant Professor, St. Michael's College **9/2001 to 6/2002**

Visiting Assistant Professor, Swarthmore College, Swarthmore, PA **9/2000 to 8/2001**

Chemistry Instructor, Kent School, Kent, CT **9/1997 to 6/2000**

Postdoctoral Fellow, Dartmouth College, Hanover, NH **Summers 1999, 2000, 2001**

COURSES TAUGHT AT ST. MICHAEL'S COLLEGE

CH 101: Chemistry for Changing Times (Fall 2004, 2002, 2001; Spring 2005, 2003, 2002)

CH 103: General Chemistry I (Fall 2009, 2008, 2007, 2006, 2005)

CH 103 Lab: General Chemistry I Lab (Fall 2005, 2001)

CH 107: General Chemistry II (Spring 2009, 2008, 2007, 2006)

CH 107 Lab: General Chemistry II Lab (Spring 2008)

CH 302: Physical Chemistry I (Fall 2009, 2008, 2007, 2006, 2005, 2004, 2003, 2002, 2001)

CH 302 Lab: Physical Chemistry I Lab (Fall 2009, 2008, 2007)

CH 304: Physical Chemistry II (Spring 2009, 2008, 2007, 2006, 2005, 2004, 2003, 2002)

CH 304 Lab: Physical Chemistry II Lab (Spring 2009, 2008, 2007, 2006, 2005, 2004, 2003, 2002)

CH 410: Coordinating Seminar (Spring 2004, Fall 2003)

CH 411: Special Topics in Chemistry: Physical Chemistry Laboratory (Spring 2007)

CH 415: Physical Chemistry III (Fall 2009, 2008, 2006, 2004, 2003, 2002)

CH 415 Lab: Physical Chemistry III Lab (Fall 2006, 2004, 2003, 2002)

CH 421: Chemical Research (Fall 2003)

CH 423: Chemical Research (Spring 2005)

PUBLICATIONS

"Integrating Statistical Mechanics with Experimental Data from the Vibrational-Rotational Spectrum of HCl into the Physical Chemistry Laboratory"; Findley, B. R.; Mylon, S. *J. Chem. Ed.* **2008**, 85, 1670.

"The Solution Dynamics of Photoinduced Geminate Radical Ion Pairs: Free Ion Formation"; Zhou, J.; Findley, B. R.; Francis, T. M.; Nytko, E. A.; Braun, C. L. *Chem. Phys. Lett.* **2002**, 362, 63.

"Long Distance Photoinduced Electron Transfer in Solutions: A Mechanism for Producing Large Yields of Free Ions By Electron Transfer Quenching"; Zhou, J.; Shah, R. P.; Findley, B. R.; Braun, C. L. *J. Phys. Chem. A* **2002**, 106, 12.

“The Separation Distance Distribution in Electron-Donor-Acceptor Systems and the Wavelength Dependence of Free Ion Yields”; Zhou, J.; Findley, B. R.; Braun, C. L.; Sutin, N. *J. Chem. Phys.* **2001**, *114*, 10448.

“Ion Pairs from Photoexcited ‘Random’ Electron Donors and Acceptors: Alkylbenzenes and Tetracyanoethylene”; Zhou, J.; Findley, B. R.; Teslja, A.; Braun, C. L.; Sutin, N. *J. Phys. Chem. A* **2000**, *104*, 11512.

“Larger than Expected Free Ion Yields from the Photoexcited Trans-Stilbene/Fumaronitrile CT Complex in a Variety of Solvents”; Findley, B. R.; Smirnov, S. N.; Braun, C. L. *J. Phys. Chem. A* **1998**, *102*, 6385.

RESEARCH GRANT PROPOSALS

“Two Studies Involving Photo-Induced Electron Transfer”; Findley, B. R. (PI), Junior Faculty Summer Stipend from the SMC Provost’s Office, \$3,000, 6/1/07 – 8/31/07 (**Awarded**).

“Two Studies Involving Electron-Donor-Acceptor Complexes”; Findley, B. R. (PI), Contribution to the Renewal of the NIH Grant submitted by the Vermont Genetics Network, \$66,000 (Research and Laboratory Renovations), 6/1/05 – 5/31/06 (**Awarded**).

“Two Studies Involving Electron-Donor-Acceptor Complexes”; Findley, B. R. (PI), Vermont Genetics Network Summer Research Grant, \$10,000, 5/15/04 - 6/30/04 (**Awarded**).

“Investigations Involving Photo-Induced Electron Transfer in Electron-Donor-Acceptor Complexes”, Research Support from the Vermont Genetics Network Block Grant to Saint Michael’s College, \$6,612, 10/24/03 - 6/30/04 (**Awarded**).

“Two Studies Involving Electron-Donor-Acceptor Complexes”; Findley, B. R. (PI), Vermont EPSCoR Summer Research Grant, \$10,000, Submitted 12/1/03 (**Denied**).

“Digital Oscilloscope for Transient Decay Measurements”; Van Houten, J. (PI); Findley, B. R. (Co-PI), Vermont EPSCoR Equipment Support for Faculty at Baccalaureate Institutions, \$20,375, Submitted 10/15/03 (**Awarded**).

“Wide-Format Printer for Production of Research-Quality Posters”; McCabe, D. (Co-PI); Findley, B. R. (Co-PI), Vermont Genetics Network Support for Small Equipment, \$13,000, Submitted 10/15/03 (**Denied**).

“The Solvent Separated Radical Ion Pair in Electron-Donor-Acceptor and Diffusional Encounter Complexes”; Findley, B. R. (PI), Vermont Genetics Network Summer Research Grant, \$10,000, 6/03 - 9/03 (**Awarded**).

“The Solvent Separated Radical Ion Pair in Electron-Donor-Acceptor Complexes”; Findley, B. R. (PI), Vermont EPSCoR Summer Research Grant, \$10,000, 6/03 - 9/03 (**Awarded**).

“Acquisition of Equipment for Time-Resolved Fluorescence Measurements to Study Photo-Induced Electron Transfer”; Findley, B. R. (PI), National Science Foundation-Major Research Instrumentation, \$111,649, Submitted 1/23/03 (**Denied**).

TEACHING GRANT PROPOSALS

“The Acquisition of a High Resolution UV-vis Spectrometer for the Advanced Laboratory”; Findley, B.R. (PI), 2005 Pittsburgh Conference Memorial National College Grants Program, \$9,000, Submitted 11/29/04 (**Denied**).

“The Acquisition of a High Resolution UV-vis Spectrometer”; Findley, B.R. (PI), 2004 Pittsburgh Conference Memorial National College Grants Program, \$9,000, Submitted 12/1/02 (**Denied**).

COLLABORATORS

Dr. Charles Braun, Professor of Chemistry, Dartmouth College, Hanover, NH (now retired).
Dr. Jinwei Zhou, Research Associate, Chemistry Department, Dartmouth College, Hanover, NH.
Dr. Steven Mylon, Assistant Professor of Chemistry, Lafayette College, Easton, PA.
Dr. Tom Kuntzleman, Assistant Professor of Chemistry, Spring Arbor Univ., Spring Arbor, MI.

UNDERGRADUATE RESEARCH STUDENTS

Katelyn Billings SMC '10, Summer 2007.
Nghì Tu SMC '09, Summer 2007.
Ian Stanton SMC '07, Summer 2005.
Addison Bouchard SMC '05, Summer 2004, Spring 2005.
Nicholas James SMC'04, Summer 2003, Fall 2003, Spring 2004.
Joshua Schoenly SMC'05, Summer 2003, Fall 2003, Spring 2004, Spring 2005.
Jessica Rabideau SMC'04, Summer 2003.

MENTORED STUDENT RESEARCH GRANT PROPOSALS

Katelyn Billings SMC '10, Mentored Student Grant through the NASA-National Space Grant College and Fellowship Program, Summer 2007, \$7,300 (**Awarded**).
Nghì Tu SMC '09, Provost Student-Faculty Research, Summer 2007, \$4,000 (**Awarded**).
Makaila Gallup SMC '09, Provost Student-Faculty Research, Summer 2007, \$4,000 (**Denied**).
Ian Stanton SMC '07, Provost Student-Faculty Research, Summer 2005, \$3,500(**Awarded**).
Addison Bouchard SMC '05, Vermont Genetics Network, Summer 2004, \$4,500 (**Awarded**).
Joshua Schoenly SMC '05, Vermont Genetics Network, Summer 2004, \$4,500 (**Awarded**).
Joshua Schoenly SMC '05, Vermont Genetics Network, Summer 2003, \$4,500 (**Awarded**).
Jessica Rabideau SMC '04, Vermont Genetics Network, Summer 2003, \$4,500 (**Awarded**).
Nicholas James SMC '04, Vermont Genetics Network, Summer 2003, \$4,500 (**Denied**).

ORAL PRESENTATIONS

“Understanding the Efficiency of Photo-Induced Electron Transfer in EDA Complexes”; Norwich University, Northfield, VT, April 11, 2007.

POSTER PRESENTATIONS

“Integrating Statistical Mechanics with Experimental Data from the Vibrational-Rotational Spectrum of HCl into the Physical Chemistry Laboratory”; Findley, B. R.*; Mylon, S. E., American Chemical Society National Meeting, Poster Presenter, Boston, 8/2007.

“Further Consideration of Photoexcitation in the Charge Transfer Band of Electron-Donor-Acceptor Complexes”; Stanton, I. **; Bouchard, A. **; Schoenly, J. **; James, N. **; Findley, B.R.*, Vermont Genetics Network (VGN) Retreat, Burlington, VT, 8/2006.

“Charge Transfer Absorption in Electron-Donor-Acceptor Complexes”; Stanton, I.; Bouchard, A.; Schoenly, J.**; James, N.**; Findley, B.R.*, Vermont Genetics Network (VGN) Retreat, Burlington, VT, 8/2005.

“Charge Transfer Absorption in Electron-Donor-Acceptor Complexes”; Stanton, I. **; Bouchard, A. **; Schoenly, J.**; James, N. **; Findley, B.R.*, Vermont EPSCoR Conference, Burlington, VT, 8/2005.

“Problems with Benesi-Hildebrand Plots in the Determination of Equilibrium Constants of Association for Electron-Donor-Acceptor Complexes”; Bouchard, A. **; Schoenly, J. **; James, N. **; Findley, B.R.*, VGN Retreat, Burlington, VT, 8/2004.

“Investigating the Wavelength Dependence of Free Ion Formation in Electron-Donor-Acceptor Complexes of Fumaronitrile and Hexamethylbenzene”; Findley, B. R.*; Teslja, A.; Zhou, J.; Braun, C. L., Photo-Induced Electron Transfer Conference, Rochester, NY, 7/1999.

* Actual presenter.

** SMC Undergraduate researcher.

UNDERGRADUATE RESEARCH STUDENT ORAL PRESENTATIONS

“Understanding the Efficiency of Photo-Induced Electron Transfer in EDA Complexes”; Tu, N., Saint Michael’s College, October 19, 2007.

“Solvatochromism and Photo-Induced Intramolecular Electron Transfer”; Billings, K., Saint Michael’s College, October 12, 2007.

“Solvatochromism and Photo-Induced Intramolecular Electron Transfer”; Billings, K., Vermont Space Consortium Awards Ceremony and Reception, University of Vermont, Burlington, VT, September 24, 2007.

“Problems with Benesi-Hildebrand Plots in Determining Equilibrium Constants for Association in EDA Complexes”, Schoenly, J., Saint Michael’s College, October, 2003.

“Electron Transfer in EDA Complexes”; James, N., Saint Michael’s College, October, 2003.

CONFERENCES/WORKSHOPS ATTENDED

American Chemical Society (ACS) National Meeting, Boston, 8/2007.

Vermont Genetics Network (VGN) Retreat, Burlington, VT, 8/2006.

ACS National Meeting, Atlanta, GA, 3/2006.

VGN Retreat, Burlington, VT, 8/2005.

Vermont EPSCoR Conference, Burlington, VT, 8/2005.

VGN and Vermont EPSCoR Grant Writing Workshop, Colchester, VT, 6/2005.

ACS National Meeting, Philadelphia, PA, 8/2004.

VGN Retreat, Burlington, VT, 8/2004.

VGN Retreat, Burlington, VT, 8/2003.

VGN and EPSCoR Grant Writing Workshop, Middlebury, VT, 6/2003.

ACS National Meeting, New Orleans, LA, 3/2003.

Photo-Induced Electron Transfer Conference, Rochester, NY, 7/1999.

SERVICE TO THE DEPARTMENT

Department of Chemistry and Physics Assessment Coordinator, SMC, 5/2005- present.

Department of Chemistry and Physics Seminar Series Coordinator, SMC, 9/03-present.
Author of Changes to the Chemistry Major Requirements, Fall 2006.
Assisted in the Changes to the Biochemistry Major Requirements, Spring 2006.

SERVICE TO THE COLLEGE

Curriculum and Educational Policy Committee Member, 6/2009-present (co-Chair since 9/2009).
Member of Committee on Undergraduate Research, 9/2008-present.
Service Learning Committee Member, 8/2006- 5/2009.
Mentor for Two Minority Students, 8/2007- 5/2009.
Multicultural Planning Committee Member, 6/2002-6/2007 (Chair 4/2005-6/2007).
Faculty Development Committee Member, 6/2005-6/2007.
Service Learning Course Participant, 8/2005.
Art Committee Member, 6/2003- 6/2005.
M.O.V.E. International Trip Leader to Calcutta, India, May/June 2004.

SERVICE BEYOND THE COLLEGE

Dartmouth College Graduate Alumni Board Member, 9/02-9/06.
Vermont Genetics Network Pilot Grant Referee, 10/05.
Minority High School Student College Experience Teacher, SMC, June 2003.
Invited Panelist, "Teaching as a Career" for Graduate Students, Dartmouth College, May 2003.
Graduate Student Poster Session Judge, Dartmouth College, April 2003.

AWARDS

Sigma Xi / American Chemical Society Member
Florian von Eschen Award in chemistry, Willamette University
Rotary International Scholarship for one year abroad, Universität Regensburg, Germany
National Merit Commendation

ADDITIONAL SKILLS/ SPECIAL INTERESTS

Fluent in German.
Enjoy reading, running, hiking, squash, tennis, alpine and Nordic skiing, piano, African drumming, film, theater, bridge, traveling, cooking and gardening.