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Academic Preparation

Postdoctoral Scholar California Institute of technology Advisor: Professor Nathan S. Lewis	November 2007-present
Ph.D. Physical chemistry University of California, Los Angeles Advisor: Professor Jeffrey I. Zink	2002-2007
M.Eng. Chemical Engineering Royal Institute of technology (KTH), Stockholm, Sweden Thesis Advisor: Professor Peter Stilbs (completed 4 th year at Flinders University, Adelaide, Australia)	1996-2002

Peer Reviewed Publications

9. **Erik Johansson**, Patrick. T. Hurley, Bruce. S. Brunshwig, and Nathan. S. Lewis, "Infrared Vibrational Spectroscopy of Isotopically Labeled Ethyl-Terminated Si(111) Surfaces Prepared Using a Two-Step Chlorination/Alkylation Procedure", *J. Phys. Chem. C*, **2009**, *113(34)*, 15239.
8. **Erik Johansson**, Eunshil Choi, Sarah Angelos, Monty Liong, and Jeffrey I. Zink, "Light-activated functional mesostructured silica", *J. Sol-Gel Sci. Technol.*, **2008**, *46(3)*, 313.
7. **Erik Johansson**, and Jeffrey I. Zink, "Nanostructured Silica Thin Films Self-Assembled with Electron Donors and Acceptors to Measure Electron Tunneling", *J. Am. Chem. Soc.*, **2007**, *129(46)*, 14437.
6. Khin K. Chin, Arunkumar Natarajan, Matthew N. Gard, Luis M. Campos, Heather Shepherd, **Erik Johansson**, and Miguel A. Garcia-Garibay, "Pump-probe spectroscopy and circular dichroism of nanocrystalline benzophenone-towards absolute kinetic measurements in solid state photochemical reactions", *Chem. Commun.*, **2007**, *41*, 4266.
5. Sarah Angelos, **Erik Johansson**, J. Fraser Stoddart, and Jeffrey I. Zink, "Mesostructured silica supports for functional materials and molecular machines", *Adv. Funct. Mater.*, **2007**, *17(14)*, 2261.
4. Michael J. Poderycki, Valerie A. Kickhoefer, Catherine S. Kaddis, Sujna Raval-Fernandes, **Erik Johansson**, Jeffrey I. Zink, Joseph A. Loo, and Leonard H. Rome, "The Vault Exterior Shell Is a Dynamic Structure that Allows

Incorporation of Vault-Associated Proteins into Its Interior", *Biochemistry*, **2006**, 45(39), 12184.

3. Sourav Saha, L. **Erik Johansson**, Amar H. Flood, Hsian-Rong Tseng, Jeffrey I. Zink, and J. Fraser Stoddart, "Powering a supramolecular machine with a photoactive molecular triad", *Small*, **2005**, 1(1), 87.

2. Sourav Saha, **Erik Johansson**, Amar H. Flood, Hsian-Rong Tseng, Jeffrey I. Zink, and J. Fraser Stoddart, "A photoactive molecular triad as a nanoscale power supply for a supramolecular machine", *Chem.--Eur. J.*, **2005**, 11(23), 6846.

1. Valerie A. Kickhoefer, Yvette Garcia, Yeshe Mikyas, **Erik Johansson**, Jing C. Zhou, Sujna Raval-Fernandes, Payam Minoofar, Jeffrey I. Zink, Bruce Dunn, Phoebe L. Stewart, and Leonard H. Rome, "Engineering of vault nanocapsules with enzymatic and fluorescent properties", *Proc. Natl. Acad. Sci. U. S. A.*, **2005**, 102(12), 4348.

Publications in Progress

1. Leslie E. O'Leary, **Erik Johansson**, Bruce S. Brunshwig, Robert H. Grubbs and Nathan S. Lewis, "Synthesis and Characterization of Mixed Methyl/Allyl Monolayers on Si(111)", *To be submitted, Langmuir*, **2009**

2. **Erik Johansson**, Shannon W. Boettcher, Leslie E. O'Leary, Andrey Polatayev, Bruce S. Brunshwig, and Nathan S. Lewis "pH dependence of band-energetics passivated and non-passivated Si(111) photocathodes." *manuscript in preparation*

3. Leslie E. O'Leary, **Erik Johansson**, and Nathan S. Lewis, "Chemical Stability of Organic Monolayers Formed in Solution" in *Functionalization of Semiconductor Surface*, edited by Dr. Feng Tao and Prof. Steven L. Bernasek, *chapter in preparation*

Conference presentations

Erik Johansson, Leslie E. O'Leary, Bruce S. Brunshwig and Nathan S. Lewis "Formation and Characterization of a Mixed-Alkyl Monolayer on Si(111)" Poster presentation at the Gordon Research Conference, Renewable Energy: Solar Fuels; February 1st-6th, Ventura, California

Erik Johansson, Shannon Boettcher, Emily Warren, Leslie O'Leary, Josh Spurgeon, Bruce Brunshwig, Harry Atwater, Nathan Lewis "Silicon Photocathodes with Defined Morphology and Surface Chemistry" Poster presentation at the Osaka University Forum 2008, Bio-Environmental Chemistry; December 8th-10th, San Francisco, California

Erik Johansson and Jeffrey I. Zink "Measurement of Electron tunneling in Mesostructured Silica" Oral presentation at the 234th ACS National Meeting; August 19th-23rd, Boston, Massachusetts

Erik Johansson and Jeffrey I. Zink "Electron transfer in Mesostructured Silica Thin-films" Oral presentation at the Southern California Inorganic Photochemistry Conference (SCIP); September 2nd-3rd 2006, Wrigley Institute for Environmental Studies, Catalina Island, California

Erik Johansson, Paul Sierocki, Thoi D. Nguyen, Hsian-Rong Tseng, Paul C. Celestre, Amar H Flood, Yi Liu, J. Fraser Stoddart and Jeffrey I. Zink “Functional Nanostructured Materials for Electron transfer, Nano-Impellers and Nano-Valves” Poster presented at 2nd Annual Frontiers in Nanosystems, February 21st – 24th, 2006, Sheraton Kauai resort, Hawaii

Erik Johansson and Jeffrey I. Zink “Nanoscale arrays of electron donor/acceptor pairs” Poster presented at 13th international workshop on Sol-Gel science and technology; August 21st-26th, 2005, University of California, Los Angeles, California

Erik Johansson and Jeffrey I. Zink “Vaults: A Study of Encapsulated, Photoactive molecules” Oral presentation at the Southern California Inorganic Photochemistry Conference (SCIP); September 24th – 26th 2004, Wrigley Institute for Environmental Studies, Catalina Island, California

Erik Johansson and Jeffrey I. Zink “Vaults: Gigantic Ribonucleoprotein Particles” Oral presentation at the Southern California Inorganic Photochemistry Conference (SCIP); October 18th-20th 2003, Wrigley Institute for Environmental Studies, Catalina Island, California

Significant Awards

Dissertation Year Fellowship (UCLA)	2006-2007
Ralph and Charlene Bauer research Award (UCLA)	2006
1 st year Graduate student award (UCLA)	2002
1998: Award for academic excellence (KTH)	1998
1997: Award for academic excellence (KTH)	1997

Pertinent Experience

Advanced Inorganic Chemistry TA – (UCLA)
Organic Chemistry lab TA – (UCLA)
Master Thesis Research – Advisor: Peter Stilbs; Co-advisor: Barney Bales
Physical Chemistry lab TA – (KTH)

Mentoring Experience

Mr. Andrey Polatayev, Summer Undergraduate Research Fellow (SURF)	2008, 2009
Outreach summer students (UCLA)	2005, 2006