

Kevin SIVULA, Ph.D.

Assistant Professor

Nationality: USA

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Institute of chemical sciences and engineering

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EDUCATION

University of California, Berkeley

Ph.D. in Chemical Engineering

2007

with High Honors (GPA of more than 3.823 based on a 4.0 scale)

Dissertation: Controlling the morphology of solution-processed bulk heterojunction photovoltaics

Directed by Prof. Jean M.J. Fréchet

University of Minnesota, Twin Cities

B.Ch.E. (Bachelor's of Chemical Engineering)

2002

with High Distinction (GPA above 3.9 on a 4.0 scale)

Emphasis in polymer science and minor degrees in mathematics and chemistry

AWARDS AND HONORS

Prix Zeno Karl Schindler/EPFL

October 2011

Awarded by the Research Commission of the EPFL on behalf of the Zeno Karl Schindler Foundation.

The purpose of the Prize is to distinguish a postdoctoral work (high level research project and publications) of particular excellence performed at EPFL, in the field of environmental sciences and/or sustainability.

"Advances in Advance" Article Award

April 2010

Awarded to selected papers published in the journal "Advanced Functional Materials" which have been judged to be very important and urgent by the referees and the peer review editor.

Prime Spéciale du Doyen (Dean's Special Prize), 2 consecutive years

Oct. 2009 and 2010

Awarded to selected EPFL collaborators for demonstrating exceptional merit.

Materials Research Society Graduate Student Gold Award

April 2007

Awarded to a graduate student for outstanding performance in the conduct of their research project and promise for future substantial achievement in materials research.

Presidential Scholarship Award

1998 – 2002

Endowed to a Minnesota resident exhibiting exceptional academic performance, scholastic aptitude, outstanding leadership, creativity, community involvement, and contribution to diversity.

Institute of Technology Dean's List (8 terms)

1998 – 2002

Presented to students who earn a GPA of more than 3.67 based on a 4.0 scale with 12 units.

Institute of Technology Honors Program Member, University of Minnesota

1998 – 2000

Admission to the honors program is selective. The admissions decision is based on the applicant's school records, standardized test scores, the application essay, and letter of recommendation.

TEACHING EXPERIENCE

Swiss Federal Institute of Technology (EPFL), Faculty of Basic Sciences

Research Project Instructor

2008 –

Developed semester research projects for Master's students course (for credit), directed the design of experiments and the interpretation of results, evaluated student progress and assessed reports and presentations.

University of California, Berkeley, College of Chemistry

Graduate Student Instructor, with Prof. Nitash Balsara

Spring 2005

Directed process control practicum for semester course "Dynamics and Control of Chemical Processes," assisted in the development of new laboratory curriculum, advised groups of students during weekly projects, and evaluated student progress.

Graduate Student Instructor, with Dr. Steven F. Pedersen

Fall 2003

Prepared and directed weekly discussion section for first semester Organic Chemistry course, supervised student laboratory section, led "office hour" tutoring section, and graded laboratory reports and lecture exams.

PROFESSIONAL EXPERIENCE

Swiss Federal Institute of Technology (EPFL), Institute of chemical sciences and engineering

Tenure-Track Assistant Professor of Chemical Engineering

2011 –

Swiss Federal Institute of Technology (EPFL), Laboratory of Photonics and Interfaces (Prof. Michael Grätzel)

Research Group Leader

2008 – 2011

Manage scientific efforts of PEHouse, a Swiss competence center for sustainable hydrogen production. Develop Ph.D. and Master's student research projects, supervise their progress, and disseminate the results to the scientific community. Maintain the laboratory environment including acquisition of new equipment and regulation of safety policy. Direct collaborations with industrial partners and international (and national) research groups including assembly of multi-disciplinary consortium for hydrogen production and storage.

Post-Doctoral Research Scientist

2007 – 2008

Conducted research to develop iron oxide-based materials for solar hydrogen production via photoelectrochemical water splitting. Designed, assembled and implemented deposition equipment for nanostructured oxide thin films. Co-authored proposals for scientific funding, scientific papers, and reports to funding agencies.

University of California, Berkeley, Prof. Jean M.J. Fréchet Laboratories

Graduate Research Assistant

2002 – 2007

Designed, synthesized, and characterized materials for nanostructured bulk heterojunction photovoltaics. Conceived, assembled, and implemented device fabrication/testing facilities for field-effect transistors, SCLC diodes, and photovoltaics. Investigated structure/function correlations in photovoltaic devices using nanometer characterization techniques.

University of Minnesota, Twin Cities, Prof. Timothy Walseth Laboratories

Undergraduate Research Assistant

1998 – 2002

Assisted in the synthesis of isotopically labeled cyclic nucleotides for *in vivo* calcium transfer studies. Developed and executed analytical methods for clinical studies with labeled metabolites using gas chromatography.

TECHNICAL AND PROFESSIONAL SKILLS

- Research group management including acquisition of external funding, creation and supervision of graduate and undergraduate research projects, and dissemination of progress and results
- Organization of collaborative research consortiums and authoring research proposals
- Development and execution of course curriculum for instruction of students
- Inorganic and organic material synthesis and characterization
- Bottom-up approaches to control nanometer scale morphology of organic and inorganic semiconductors
- Fabrication and standardized characterization of photovoltaic and photoelectrochemical devices for solar energy conversion, and other relevant devices (transistors, sensors, diodes)

LANGUAGES

English – Native language
French – Advanced oral and written competence

MEMBERSHIPS

Swiss Chemical Society
American Chemical Society
Materials Research Society

REFERENCES

Prof. Dr. h.c. mult. Michael GRÄTZEL

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