CW Schlenker, PhD

Washington Research Foundation Assistant Professor of Chemistry and Clean Energy
NSF SEES Fellow
Department of Chemistry
University of Washington
Seattle, WA 98195-1700

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Education

UNIVERSITY OF SOUTHERN CALIFORNIA, Los Angeles, CA — 2010
PhD in Chemistry: Anton B. Burg Research Fellow in Chemistry
Thesis Advisor: Prof. Mark E. Thompson
Thesis: Organic Solar Cells: Molecular Electronic Processes and Device Development

LINFIELD COLLEGE, McMinnville, OR — 2004
BS in Chemistry: Magna cum laude
Research Advisor: Prof. Thomas J. Reinert

Appointments

UNIVERSITY OF WASHINGTON, Department of Chemistry — 2014 – Present
Washington Research Foundation Assistant Professor of Chemistry and Clean Energy

UNIVERSITY OF WASHINGTON, Department of Chemistry — 2012 – Present
NSF SEES Fellow (Science, Engineering, and Education for Sustainability)
Hosting Mentor: Prof. David S. Ginger (Physical Chemistry)
Partnering Mentor Prof. Joyce S. Cooper (Mechanical Engineering)
Research Topic: Sustainable design for high-performance organic solar cells

UNIVERSITY OF WASHINGTON, Department of Chemistry — 2011 – 2012
Postdoctoral Research Associate
Research Advisor: Prof. David S. Ginger
Research Topic: Charge generation and recombination in organic solar cell materials using excited state absorption spectroscopy

UNIVERSITY OF SOUTHERN CALIFORNIA, Department of Chemistry — 2005 – 2010
Anton B. Burg Graduate Research Fellow
Research Advisor: Prof. Mark E. Thompson
Research Topic: Molecular design and device engineering for controlling charge generation and charge recombination in photovoltaic devices

CORNELL UNIVERSITY, Cornell Center for Materials Research — 2003
NSF REU Research Associate
Research Advisor: Prof. Claude Cohen
Research Topic: Tailored nanoparticle-polymer composites for environmental remediation of soil contaminated with aromatic hydrocarbons

LINFIELD COLLEGE, Department of Chemistry 2002
Undergraduate Research Associate
Research Advisor: Prof. Thomas J. Reinert
Research Topic: Synthesis of sterically hindered trans-porphyrins

Peer-Reviewed Publications (†Invited material, §Equal authorship)

Principal Investigator

23. "Nanostructure and Fullerene Triplet Exciton Energies are Equally Important for Controlling Recombination in Organic Solar Cells," Li, C.-Z.; Chueh, C-C.; Sulas, D.; Williams, S.; Richards, J.; Yip, H.-L.; Ding, F.; Li, X. S.; Pozzo, D.; Collins, B. A.; Ade, H.; Ginger, D. S.; Schlenker, C.W.; and Jen, A. K.-Y., (*in preparation*), 2015

22. "Surface Chemistry of Fluorinated Additives in Nanosilicon Li-ion batteries," Rigsby, M.; Olson, J.; Schlenker, C.W. (*in preparation*), 2015

21. "Open-Circuit Voltage Losses in Selenium-Substituted Organic Photovoltaic Devices from Increased Density of Charge-Transfer States" Sulas,†D. B.; Yao, K.; Intemann, J.; Williams, S.; Li, C.-Z.; Chueh, C.-C.; Richards, J.; Xi, Y.; Pozzo, L. D.; Schlenker, C. W.; Jen, A. K.-Y.; Ginger, D. S., *submitted*, ***Chem. Mater.***, 2015.

20. "Modulation of Hybrid Organic–Perovskite Photovoltaic Performance by Controlling the Excited Dynamics of Fullerenes" Li, C. Z.; Liang, P. W.; Sulas, D. B.; Nguyen, P. D.; Zang, Y.; Cho, N.; Huang, J.; Li, X.; Ginger, D. S.; Schlenker, C. W.; and Jen, A. K.-Y., ***Mater. Horiz.***, 2, 414 – 419, 2015.

Postdoctoral and Graduate Research

19. "High-Dielectric Constant Photoactive Functional Side-chain Polymers for Controlling Charge Dynamics in Heterojunction Polymer-Fullerene Solar Cells," Cho, N.; Schlenker, C. W.; Knesting, K. M.; Koelsch, P.; Yip, H.-L.; Ginger, D. S.; and Jen, A. K.-Y., ***Adv. Energy Mater.***, 4, 1301857, 2014

18. "Size-Dependent Charge Transfer Yields in Conjugated Polymer/Quantum Dot Blends," Nagaoka, H.; Colbert, A. E.; Strein, E.; Janke, E.; Salvador, M.; Schlenker, C. W.; Ginger, D. S., ***J. Phys. Chem. C***, 118 (11), 5710–5715, 2014

17. "ITO Interface Modifiers can Improve V_{OC} in Polymer Solar Cells and Suppress Surface Recombination," Knesting, K. M.; Ju, H.; Schlenker, C. W. Giordano, A. J. Garcia, A.; Smith, O.L.; Olson, D. C.; Marder, S. R.; Ginger, D. S., ***J. Phys. Chem. Lett.***, 4 (23), 4038-4044, 2013

16. **This letter in *Nature* was featured by *E&E News*, *PhysOrg*, *Science Daily*, and other news outlets**
"The Role of Spin for the Kinetic Control of Recombination in Organic Photovoltaics," Rao, A.; Chow, P.; Gélinas, S.; Schlenker, C. W.; Li, C.-Z.; Yip, H.-L.; Jen, A. K-Y.; Ginger, D. S.; Friend, R. H., ***Nature***, 500, 7463, 435–439, 2013

15. **This article was selected for the RSC 'Editor's Choice' list of recommended PV articles**
"Charge Generation and Energy Transfer in Hybrid Polymer/Infrared Quantum Dot Solar Cells," Strein, L.; Colbert, A. E.; Nagaoka, H.; Subramaniyan, S.; Schlenker, C. W.; Janke, E. M.; Jenekhe, S. A.; Ginger, D. S., ***Energy Environ. Sci.***, 6, 769-775, 2013

14. "Hole Transfer from Low Bandgap Quantum Dots to Conjugated Polymers in Organic/Inorganic Hybrid Photovoltaics," Colbert, A. E.; Janke, E. M.; Hsieh, S. T.; Subramaniyan, S.; Schlenker, C. W.; Jenekhe, S. A.; and Ginger, D. S., ***J. Phys. Chem. Lett.***, 4, 280–284, 2013

13. "Photoinduced Hole Transfer Becomes Suppressed with Diminished Driving Force in Polymer-Fullerene Solar Cells While Electron Transfer Remains Active," Ren, G.; Schlenker, C. W.; Ahmed, E.; Subramaniyan, S.; Olthof, S.; Kahn, A.; Ginger, D. S.; Jenekhe, S. A., ***Adv. Funct. Mater.***, 23, (10), 1238–1249, 2013

12. "Polymer Triplet Energy Levels Need Not Limit Photocurrent Collection in Organic Solar Cells," Schlenker, C. W.; Chen, K.-S.; Yip, H.-L.; Li, C.-Z.; Ochsendbein, S.; Bradshaw, L.; Ding, F.; Li, X. S.; Gamelin, D. R.; Jen, A. K.-Y.; Ginger, D. S., ***J. Am. Chem. Soc.***, 134(48), 19661-19668, 2012

11. "Halogen-Free Solvent Processing for Sustainable Development of High Efficiency Organic Solar Cells," Chen, K.-S.; Yip, H.-L.; Schlenker, C. W.; Ginger, D. S.; Jen, A. K.-Y., ***Org. Electron.***, 13, 2870-2878, 2012

10. "Porphyrins Fused with Unactivated Polycyclic Aromatic Hydrocarbons," Diev, V. V.; Schlenker, C. W.; Hanson, K.; Zhong, Q.; Zimmerman, J. D.; Forrest, S. R.; and Thompson, M. E., ***J. Org. Chem.***, 77(1), 143-159, 2012

9. **The most frequently downloaded article published in *Chemistry of Materials*, October 2011**
"Cascade Organic Solar Cells," Schlenker, C. W.; Barlier, V; Chin, S. W.; Whited, M. T.; McAnally, R. E.; Forrest, S. R.; and Thompson, M. E., ***Chem. Mater.***, 23(18), 4132–4140, 2011

8. "Reciprocal Carrier Collection in Organic Photovoltaics," §Renshaw, C. K.; §Schlenker, C. W.; Thompson, M. E.; and Forrest, S. R., ***Phys. Rev. B***, 84(4) 045315, 2011

7. "Acetylide-bridged Tetracene Dimers," Barlier, V. S.; Schlenker, C. W.; Chin, S. W.; and Thompson, M. E., ***Chem. Commun.***, 47(13), 3754-3756, 2011

6. **This Feature Article was on the front cover of *Chemical Communications***
†"The Molecular Nature of Photovoltage Losses in Organic Solar Cells," Schlenker, C. W. and Thompson, M. E., ***Chem. Commun.***, 47(13), 3702-3716, 2011

5. "Observation of Triplet Exciton Formation in a Platinum Sensitized Organic Photovoltaic Device," Roberts, S. T.; Schlenker, C. W.; Barlier, V.; McAnally, R. E.; Zhang, Y.; Mastron, J. N.; Thompson, M. E.; and Bradforth, S. E., ***J. Phys. Chem. Lett.***, 2(2), 48-54, 2011

4. "Singlet and Triplet Excitation Management in a Bichromophoric Near-Infrared-Phosphorescent BODIPY–Benzoporphyrin Platinum Complex," Whited, M. T.;Djurovich, P. I.; Roberts, S. T.; Durrel, A. C.; Schlenker, C. W.; Bradforth, S. E.; and Thompson, M. E., ***J. Am. Chem. Soc.***, 133(1), 88-96, 2011

3. **This *ACS Nano* article has been cited over 400 times and featured on numerous science news sites**
"Continuous, Highly Flexible, and Transparent Graphene Films by Chemical Vapor Deposition for Organic Photovoltaics," Gomez De Arco, L.; Zhang, Y.; Schlenker, C. W.; Ryu, K.; Thompson, M. E.; and Zhou, C., ***ACS Nano***, 4(5), 2865-2873, 2010

2. "Solution-Phase Synthesis of SnSe Nanocrystals for Use in Solar Cells," Franzman, M. A.; Schlenker, C. W.; Thompson, M. E.; and Brutchey, R. L., ***J. Am. Chem. Soc.***, 132(12), 4060-4061, 2010

1. "A Round Robin Study of Flexible Large-Area Roll-to-Roll Processed Polymer Solar Cell Modules," Krebs, F. C.; Gevorgyan, S. A.; Gholamkhass, B.; Holdcroft, S.; Schlenker, C.; Thompson, M. E.; Thompson, B. C.; Olson, D.; Ginley, D. S.; Shaheen, S. E.; Alshareef, H. N.; Murphy, J. W.; Youngblood, W. J.; Heston, N. C.; Reynolds, J. R.; Jia, S.; Laird, D.; Tuladhar, S. M.; Dane, J. G. A.; Pedro Atienzar, Nelson, J.; Kroon, J. M.; Wienk, M. M.; Janssen, R. A. J.; Tvingstedt, K.; Zhang, F.; Andersson, M.; Inganäs, O.; Lira-Cantu, M.; de Bettignies, R.; Guillerez, S.; Aernouts, T.; Cheyns, D.; Lutsen, L.; Zimmermann, B.; Würfel, U.; Niggemann, M.; Schleiermacher, H.; Liska, P.; Grätzel, M.; Lianos, P.; Katz, E. A.; Lohwasser, W.; and Jannon, B., ***Sol. Energy Mater. Sol. Cells***, 93(11), 1968-1977, 2009

Book Chapters

1. "Current Challenges in Organic Photovoltaic Solar Energy Conversion," Schlenker, C. W. and Thompson, M. E., ***Top. Curr. Chem.***, 312, 175-212, Springer-Verlag, Heidelberg, 2012

Patents

1. "Organic Optoelectronic Device Employing Electrodes Comprising Nanotubes," Zhang, D.; Ryu, K.; Liu, X.; Polikarpov, E.; Ly, J.; Thompson, M. E.; Zhou, C.; and Schlenker, C., *U.S. Pat. Appl. Publ.* US 20080018232 A1 2008

Awards, Honors, and Distinctions

Pacific Science Center, Science Communication Fellowship *A fellowship program through Seattle's Pacific Science Center focused on developing skills and tools to inspire public dialogue centered on science and technology*	UW	2013 – 2014
Los Alamos National Lab CNLS Travel Grant Award *Travel award to present at the CNLS 'Organic solar cells: theory and experiment, from description to prediction' workshop*	UW	2013
NSF SEES Postdoctoral Fellowship Award *A competitive fellowship awarded to the top 10% of applicants and worth $500,000 for sustainable solar energy research*	UW	2012 – Present
Michael J. Dulligan Memorial Research Award in Physical Chemistry *In recognition of outstanding research in Physical Chemistry*	USC	2010
Anton B. Burg Foundation Graduate Fellowship in Chemistry *In recognition of outstanding research in Inorganic Chemistry*	USC	2006 – 2010
Magna cum laude graduation honors *Graduated above the top 10% of the preceding graduating class*	Linfield College	2004
Linfield College Jazz Musician of the Year	Linfield College	2004
Linfield College Tuition Exchange Scholarship Award *A competitive merit scholarship award covering all tuition costs*	Linfield College	2000 – 2004
Jamie Jones Memorial Scholarship Award *A competitive music scholarship award*	Linfield College	2000 – 2002

Professional Membership

American Chemical Society
Materials Research Society
SPIE

Service, Outreach, and Public Engagement

Pacific Science Center Research Weekends, 2015
University of Washington "Paws-on Science" Research Weekend Exhibit Staff, Seattle, WA

Mercer Slough Environmental Education Center, October, 2013
Guest speaker for the Environmental Science and Technology Teen Practicum for high school-aged students to explore environmental and clean technologies and associated careers.
Mercer Slough Nature Park, Bellevue, WA

Solar Power from Paints and Plastics, 2013
Presenter and Organizer for 'Scientist Spotlight' at Pacific Science Center
Pacific Science Center, Seattle, WA

NW SolarFest: 10th Annual Renewable Energy & Sustainable Living Fair, 2013
UW Advanced Materials for Energy Institute Exhibit Coordinator and Exhibit Staff
Shoreline Community College, Shoreline, WA

Seattle Science Festival, Science EXPO Day, 2013
Solar Energy Exhibit Staff for Science EXPO Day at Seattle Center. Estimated attendance of 15,000 people, Seattle, WA

Pacific Science Center Research Weekends, 2013
University of Washington "Paws-on Science" Research Weekend Exhibit Staff, Seattle, WA

Mercer Slough Environmental Education Center, January, 2013
Guest speaker for the Environmental Science and Technology Teen Practicum for high school-aged students to explore environmental and clean technologies and associated careers.
Mercer Slough Nature Park, Bellevue, WA

NW SolarFest: 9th Annual Renewable Energy & Sustainable Living Fair, 2012
UW Advanced Materials for Energy Institute Exhibit Coordinator and Exhibit Staff
Shoreline Community College, Shoreline, WA

UW 15th Annual Undergraduate Research Symposium, 2012
Session Moderator, University of Washington, Seattle, WA

UW College of Arts and Sciences Dean's Showcase Chemistry Exhibit, 2012
University of Washington "Husky Fest" Chemistry Exhibit Staff, Seattle, WA

Pacific Science Center Research Weekends, 2012
University of Washington "Paws-on Science" Research Weekend Exhibit Staff, Seattle, WA

Science Café Speaker for Pacific Science Center's Portal to the Public, 2011
Speaker and discussion leader for the Adult Education Program's Science Café, Kenmore, WA
http://www.pacificsciencecenter.org/Adult-Education/sciencecafe

NSF Research Experience for Teachers (RET) Program Mentor, 2010
Research mentor to teachers Tien Huynh-Dinh and Isabel Perez, Bravo Medical Magnet High School, Los Angeles, CA

Oregon Museum of Science and Industry (OMSI) Volunteer, 2004
Portland, OR

Linfield Society of Undergraduate Chemists *ACS Student Affiliate Chapter*, 2003
Treasurer and Community Outreach Volunteer, McMinnville, OR

Professional Service for the following journals:
ACS Applied Materials and Interfaces; 2014
Advanced Materials; 2012
Chemistry of Materials; 2014
Energy & Environmental Science; 2013, 2013, 2013, 2013, 2013, 2014, 2014
IEEE Journal of Photovoltaics; 2011
Journal of Physical Chemistry Letters; 2012
Journal of Vacuum Science and Technology A; 2012
Nature Chemistry, 2014
Organic Electronics; 2012, 2013
RSC Advances; 2013
Science and Technology of Advanced Materials; 2014
Service with the following agencies: *National Science Foundation* (US NSF); 2013, 2014

Teaching, Teaching Assistance, and Mentorship

UW Chemistry Undergraduate Quantum Mechanics; UW CHEM155 — Fall 2014
Undergraduate Quantum Mechanics Enrollment: 50 students, Department of Chemistry
University of Washington

UW Chemistry Guest Lecturer for *Honors General Chemistry*; UW CHEM155 — Winter 2013
Guest lecturer on electrochemistry in the Department of Chemistry
University of Washington

UW Physics Guest Lecturer for *Energy Future*; UW PHYS217 — Fall 2012
Guest lecturer in special topics seminar series hosted by the Department of Physics
University of Washington

Host for High School Job Shadow Events — Fall 2012
Host to sophomore high school student Galen Hall from Bellevue Big Picture School
University of Washington

Mentor for Undergraduate Researchers — 2005 – 2010
Active mentorship of 6 undergraduate researchers in chemistry and chemical engineering
University of Southern California

Mentor for NSF Research Experience for Teachers Program Participants — Summer 2010
University of Southern California

Mentor for NSF Research Experience for Undergraduates Program Participants — Summer 2009
University of Southern California

Mentor for NSF Research Experience for Teachers Program Participants — Summer 2008
University of Southern California

Physical Chemistry Teaching Assistant — Fall 2005
University of Southern California

General Chemistry Teaching Assistant — 2004 – 2005
University of Southern California

Organic Chemistry Teaching Assistant 2003 – 2004
Linfield College

General Chemistry Discussion Section Leader 2003 – 2004
Linfield College

General Chemistry Teaching Assistant 2002 – 2003
Linfield College

Presentations

(†Invited seminars, underlining denotes presenter)

40. † "Charge dynamics at interfaces in next-generation energy conversion materials," Schlenker, C.W.; *249th National Annual Meeting of the American Chemical Society*, Denver, CO, April, **2015**

39. "Understanding and controlling charge recombination in organic solar cells," Schlenker, C.W.; *248th National Annual Meeting of the American Chemical Society*, San Francisco, Aug., **2014**

38. † "Charge generation and recombination dynamics in emerging photovoltaics," Schlenker, C.W.; *University of Houston, Department of Chemistry Seminar Series*, Houston, TX, Nov., **2014**

37. † "Charge Dynamics at Interfaces in Next-generation Energy Conversion Materials," Schlenker, C.W.; *University of Washington, Clean Energy Institute Interdisciplinary Seminar Series*, Seattle WA, Oct., **2014**

36. † "Understanding and controlling charge dynamics in next-generation solar cells," Schlenker, C.W.; *Orcas 2014: International Conference on Energy Conversion & Storage*, Friday Harbor, WA, Sept., **2014**

35. † "Can chemists control charge dynamics in organic electronics?" Schlenker, C.W.; *Departmental Seminar, Department of Chemistry, Purdue University*, West Lafayette, IN, Jan., **2014**

34. † "Chemistry for controlling charge dynamics at organic interfaces," Schlenker, C.W.; *Materials Chemistry Seminar, Department of Chemistry, Washington University in St. Louis*, St. Louis, MO, Jan., **2014**

33. † "Chemistry for probing electronic excitations at organic interfaces," Schlenker, C.W.; *Energy Science Institute Seminar, Yale University*, New Haven, CT, Dec., **2013**

32. † "Can chemists control charge dynamics in organic electronics?" Schlenker, C.W.; *Materials Chemistry Seminar, Department of Chemistry, University of Chicago*, Chicago, IL, Dec., **2013**

31. † "Chemistry for understanding charge dynamics in organic electronics," Schlenker, C.W.; *Physical Chemistry Seminar, Department of Chemistry, University of Utah*, Salt Lake City, UT, Dec., **2013**

30. † "Chemistry for probing electronic excitations at organic interfaces," Schlenker, C.W.; *Departmental Seminar, Department of Chemistry, Western Washington University*, Bellingham, WA, Nov., **2013**

29. † "New discoveries in electronic excitations at organic interfaces," Schlenker, C.W.; *Departmental Seminar, Department of Chemistry, University of Washington*, Seattle, WA, Nov., **2013**

28. †"Strategies for Kinetic Control in Organic Solar Cells," Schlenker, C.W.; Li, C.Z.; Sulas, D.; Richards, J.; Chueh, C.C.; Yip, H.L.; Pozzo, D.; Jen, A.K.-Y.; Ginger, D. S.; *OSA Renewable Energy and the Environment*, Tucson, AZ, Nov., **2013**

27. "Molecular Motifs for Interfacial Kinetic Control of Organic Solar Cell Performance," Schlenker, C.W.; Li, C.Z.; Sulas, D.; Chueh, C.C.; Yip, H.L.; Jen, A.K.-Y.; Ginger, D. S., *Japan Society of Applied Physics-Materials Research Society Joint Symposia*, Kyoto, Japan, Sept., **2013**

26. †"Charge Generation and Recombination in High Open Circuit Voltage Organic Solar Cells," Ginger, D. S.; Schlenker, C.W.; Chen, K.S.; Jen, A.K.-Y.; Jenekhe, S.A.; Li, C.Z.; Bradshaw, L.; Yip, H.L.; Ren, G.; Gamelin, D. R.; *SPIE Optics+Photonics, Organic Photovoltaics XIV*, San Diego, CA, Aug., **2013**

25. †"Goldilocks and the Photophysics of Organic Solar Cells: A Path to High Performance via Optimizing Charge Carrier Dynamics," Schlenker, C.W. Li, C.-Z.; Rao, A.; Sulas, D.; Chueh, C.-C.; Yip, H.-L.; Friend, R. H.; Jen, A. K.-Y.; Ginger, D S.; *The 68th Northwest Regional Meeting of the American Chemical Society, Physical Chemistry Symposium*, Corvallis, OR, July, **2013**

24. "Toward Structure-Function Control of Charge Dynamics in Organic Solar Cells," Schlenker, C.W. Li, C.-Z.; Sulas, D.; Chueh, C.-C.; Yip, H.-L.; Jen, A. K.-Y.; Ginger, D S.; *Los Alamos National Laboratory, Center for Nonlinear Studies Workshop on Organic Solar Cells,* Santa Fe, NM, May, **2013**

23. "Rethinking charge generation and recombination in organic solar cell design," Schlenker, C.W.; *Materials Chemistry Seminar, Department of Chemistry, Simon Fraser University*, Burnaby, BC, CA, Feb., **2013**

22. "Rethinking charge generation and recombination in organic solar cell design," Schlenker, C.W.; *Center for Photochemical Sciences, Bowling Green State University*, Boling Green, OH, Jan. **2013**

21. "Rethinking charge generation and recombination in organic solar cell design," Schlenker, C.W.; *Departmental Seminar, Department of Chemistry, University at Buffalo*, Buffalo, NY, Nov., **2012**

20. "New Insights on Charge Generation in High-voltage Polymer:Fullerene Solar Cells," Schlenker, C.W.; Chen, K.-S.; Yip, H.-L.; Li C.-Z., Ochsenbein1, S.; Bradshaw, L. R.; Gamelin D. R.; Jen, A. K.-Y.; Ginger, D. S., *Orcas 2012 – International Conference On Energy Conversion*, Friday Harbor Laboratories, Friday Harbor, WA, Sept., **2012** **—Awarded Best Conference Poster**

19. "Identification of a New Photocurrent Loss Mechanism at High Photovoltage: Experimental Evidence and Strategies for Circumvention," Schlenker, C.W.; Chen, K.-S.; Yip, H.-L.; Li C.-Z., Ochsenbein1, S.; Bradshaw, L. R.; Gamelin D. R.; Jen, A. K.-Y.; Ginger, D. S., *Gordon Research Conference on Electronic Processes in Organic Materials*, Barga, Italy, June, **2012**

18. "Pinpointing Photocurrent Losses and Identifying Mitigation Strategies in High-Voltage Organic Solar Cells," Schlenker, C.W.; Chen, K.-S.; Yip, H.-L.; Li C.-Z., Ochsenbein1, S.; Bradshaw, L. R.; Gamelin D. R.; Jen, A. K.-Y.; Ginger, D. S., *Materials Research Society Spring Meeting*, San Francisco, CA, April, **2012**

17. †"Managing Excitation and Charge Migration in Small Molecule Organic Solar Cells," Schlenker, C.W., *Linfield College Science Colloquium Series*, Linfield College, McMinnville, OR, Feb., **2011**

16. "Continuous, Highly Flexible and Transparent CVD Graphene Films and Their Application in Solar Cells," Gomez De Arco, L.; Zhang, Y.; Schlenker, C. W.; Ryu, K.; Thompson, M. E.; and Zhou, C., *Materials Research Society Spring Meeting*, San Francisco, CA, April, **2010**

15. "Solution Processable Squaraine Dye in Bilayer Heterojunction Photovoltaic Devices," Wang, S.; Wei, G.; Diev, V.; Schlenker, C.; Djurovich, P.; Forrest S. R.; and Thompson, M. E., *American Chemical Society Spring National Meeting*, San Francisco, CA, March, **2010**

14. "CVD Graphene Films and its Application in Organic Photovoltaic Cells," Gomez De Arco, L.; Zhang, Y.; Schlenker, C. W.; Ryu, K.; Thompson, M. E.; and Zhou, C., *American Physical Society Annual Meeting*, Portland, OR, March, **2010**

13. "Charge Collection in Thin Film Organic Photovoltaics," Schlenker, C. W. and Thompson, M. E., *Micro Nano Breakthrough Conference*, Portland, OR, Sept., **2009**

12. "Chemical Vapor Deposition of Single- and Few-Layer graphene film and its application in solar cells," Gomez De Arco, L.; Zhang, Y.; Schlenker, C. W.; Ryu, K.; Thompson, M. E.; and Zhou, C., *Materials Research Society Fall Meeting*, Boston, MA, Dec., **2009**

11. "Charge Extraction in Planar Heterojunction Organic Photovoltaics," Schlenker, C. W. and Thompson, M. E., *Materials Research Society Spring Meeting*, San Francisco, CA, April, **2009**

10. "New Materials for Organic Photovoltaic Devices," Thompson, M. E.; Perez, M. D.; Schlenker, C. W.; Mutolo, K.; and Forrest, S. R., *American Chemical Society Spring National Meeting,* Salt Lake City, UT, March, **2009**

9. "Reciprocal Carrier Management in Planar Heterojunction Organic Photovoltaics," Schlenker, C. W. and Thompson, M. E. *Renewable energy: Solar Fuels Gordon Research Conference,* Ventura, CA, Feb., **2009**

8. "Charge Transport in tris(β-diketonato)ruthenium(III) Complexes Employed as Buffer Layers in Organic Double-Heterojunction Photovoltaic Devices," Schlenker, C. W.; Morrison, E.; Wilson, S; Mayo, E. I.; Forrest, S. R.; and Thompson, M. E., *Materials Research Society Spring Meeting*, San Francisco, CA, April, **2009**

7. "The Use of Metal Complexes in Organic Solar Cells," Thompson, M. E.; Perez, M. D.; Mutolo, K.; and Schlenker, C. W., *American Chemical Society Spring National Meeting*, New Orleans, LA, April, **2008**

6. "Transparent Conductive Carbon Nanotube Films for Organic Photovoltaic Cell Processing," Ryu, K.; Schlenker, C.; Zhang, D.; Liu, X.; Fijin, T.; Choe, Y.; Thompson, M.; and Zhou, C., *Materials Research Society Spring Meeting*, San Francisco, CA, April, **2007**

5. "Carbon Nanotube Films as Hole Collecting Electrodes in Organic Photovoltaics," Schlenker, C. W.; Ryu, K.; Zhou, C.; and Thompson, M. E., *Renewable energy: Solar Fuels Gordon Research Conference,* Ventura, CA, Jan., **2007**

4. "Preparation and Study of poly(ethylene glycol) Hydrogels Containing Urethane Acrylate Nanoparticles," Schlenker, C. W.; Batra, A.; and Cohen, C., *American Chemical Society Spring National Meeting,* Anaheim, CA, March, **2004**

3. "Preparation and Study of poly(ethylene glycol) Hydrogels Containing Urethane Acrylate Nanoparticles," Schlenker, C. W.; Batra, A.; and Cohen, C., *Oregon Academy of Science Annual Meeting*, Portland, OR, Feb., **2004**

2. "Synthesis of Dipyrromethanes as Precursors to Sterically Hindered *trans*-Porphyrins" Schlenker, C. W. and Reinert, T. J., *American Chemical Society Spring National Meeting,* New Orleans, LA, March, **2003**

1. "Synthesis of Dipyrromethanes as Precursors to Sterically Hindered Porphyrins," Schlenker, C. W. and Reinert, T. J., *Oregon Academy of Science Annual Meeting*, McMinnville, OR, Feb., **2003**

Media Coverage of Schlenker's Research and Outreach

E&E News: ClimateWire interviews Schlenker on new understanding of electronic dynamics in polymer photovoltaics http://www.eenews.net/cw/2014/07/02

E&E News: ClimateWire interviews Schlenker about discoveries in organic solar cell design
http://www.eenews.net/cw/2013/08/08

University of Washington 'Chemistry Department News' features *Nature* paper on triplet recombination
http://depts.washington.edu/chemwp/chemwpblog/?p=1185

University of Washington 'UW Today' OPV interview with Schlenker posted on various science news sites
http://scitechdaily.com/manipulating-electron-spin-dramatically-improves-organic-solar-cell-performance/
http://www.scienceworldreport.com/articles/8695/20130808/key-organic-solar-cells-electron-spin-revolutionizing-renewable-energy.htm
http://www.rdmag.com/news/2013/08/regulating-electron-%E2%80%9Cspin%E2%80%9D-may-be-key-making-organic-solar-cells-competitive
http://www.newelectronics.co.uk/electronics-news/putting-a-different-spin-on-organic-solar-cells/53519/
http://beforeitsnews.com/international/2013/08/electron-spin-key-to-solar-cell-breakthrough-2465444.html
http://dailyfusion.net/2013/08/electron-spin-control-promises-more-efficient-organic-solar-cells-16812/

University of Washington 'MS&E News' features *Nature* paper on triplet recombination
http://depts.washington.edu/mse/news/08-07-13_Regulating-electron-spin.shtml

Science Daily features triplet recombination paper in *Nature* as one of its Top 10 Stories
http://www.sciencedaily.com/releases/2013/08/130807133432.htm

University of Cambridge Research News cover-story on suppressing triplet recombination
http://www.cam.ac.uk/research/news/electron-spin-key-to-solar-cell-breakthrough-0

UW Today interviews Schlenker about discovery that triplet recombination can be suppressed in OPVs
http://www.washington.edu/news/2013/08/07/regulating-electron-spin-may-be-key-to-making-organic-solar-cells-competitive/

The Seattle Times website pictures Schlenker's solar cell outreach at Seattle Science Festival EXPO Day
http://seattletimes.com/html/picturethis/2021149658_wonderofscienceatexpo.html

Linfield College News interviews Schlenker on the strength of the Linfield Department of Chemistry
http://www.linfield.edu/linfield-news/linfield-professor-honored-by-usc-2/

Seattle PBS KCTS9 features Schlenker's Science Café presentation on the "Next Generation of Solar Cells"
http://kcts9.org/education/science-cafe/next-generation-solar-cells

USC Viterbi Schooling of Engineering News features Schlenker's collaborative work on graphene solar cells
http://viterbi.usc.edu/news/news/2010/graphene-organic-photovoltaics.htm

Science Daily features Schlenker's collaborative work on graphene solar cells
http://www.sciencedaily.com/releases/2010/07/100723095430.htm

PhysOrg features Schlenker's collaborative work on graphene solar cells
http://phys.org/news199100025.html

Daily Trojan newspaper interviews Schlenker on new horizons for organic solar cell research at USC
http://dailytrojan.com/2009/08/19/doe-grant-funds-energy-research/

Professional Development

Research Corporation Cottrell Scholars Collaborative New Faculty Workshop
A workshop aimed at helping new faculty adopt evidence-based teaching strategies in their courses, define learning objectives, make lessons active, and develop formative and summative assessment to keep students engaged.

Pacific Science Center (PSC), Science Communication Fellowship
A fellowship program through Seattle's Pacific Science Center focused on developing tools to better engage the public in a dialogue about science and technology, Seattle, WA

Pacific Science Center's Science Communication Workshop
A training session hosted by PSC's Portal to the Public to equip scientists with techniques for engaging public audiences of all ages and levels of science background, Seattle, WA

Life Cycle Assessment, UW Mechanical Engineering
Enrolled in a ten-week project-driven graduate level course focused on the computational structure of Life Cycle Assessment and sustainable design practices offered in the Department of Mechanical Engineering at University of Washington, Seattle, WA

Visual Communication Design for Scientists Workshop
A seven-week course in information design aimed at successful visual communication of scientific data. Hosted by the Division of Biomedical and Health Informatics at University of Washington, Seattle, WA

University of Washington Department of Physics Instrument Fabrication and Machine Shop
Enrolled in a ten-week lecture and practical course focused on the design and machine fabrication of metalwork for scientific instrumentation in the Department of Physics at the University of Washington, Seattle, WA