David S. Ginger, Jr.

Alvin L. and Verla R. Kwiram Professor of Chemistry
Washington Research Foundation Distinguished Scholar in Clean Energy

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Education

Ph.D. Physics, Cavendish Laboratory, University of Cambridge, U.K., July 2001
Thesis: *Optoelectronic Properties of CdSe Nanocrystals,* Advisor: Dr. N. C. Greenham

B.S. Physics, with Honors and Highest Distinction and
B.S. Chemistry, with Honors and Highest Distinction, Minor in Mathematics
Indiana University, May 1997, GPA 3.99/4.0
Senior Thesis: *Studies of Nuclear Dynamics in Intermediate Energy Reactions,* Advisor: Prof. V.E. Viola

Professional Experience

2014-Present	*Alvin L. and Verla R. Kwiram Endowed Professor of Chemistry, University of Washington*
2014-Present	*Washington Research Foundation Distinguished Scholar in Clean Energy*
2013-Present	*Associate Director, UW Clean Energy Institute (WA State)*
2010-Present	*Adjunct Professor of Physics, University of Washington*
2010-2014	*Professor and Raymon E. and Rosellen M. Lawton Distinguished Scholar in Chemistry*
2010-2013	*Associate Director, UW Advanced Materials for Energy Institute*
2008-2010	*Associate Professor of Chemistry, University of Washington*
2003-2008	*Assistant Professor of Chemistry, University of Washington*
2001-2003	*NIH and DuPont Postdoctoral Fellow with Prof. Chad Mirkin, Northwestern University*
1997-2001	*Graduate research with Dr. Neil Greenham, University of Cambridge*

Honors and Awards

Fellow, American Association for the Advancement of Science, 2012
Burton Medal, Microscopy Society of America, 2012
Defense Sciences Study Group, 2012-2013
Research Corporation Scialog Solar Fellow, 2011
American Chemical Society Division of Colloids and Surface Science Unilever Award, 2008
Departmental Outstanding Teaching Award, UW Department of Chemistry, 2007
Camille Dreyfus Teacher-Scholar Award, Camille and Henry Dreyfus Foundation, 2007
Sloan Fellowship, Alfred P. Sloan Foundation, 2007
Cottrell Scholar, Research Corporation, 2006
Presidential Early Career Award for Scientists and Engineers (PECASE), DoD/AFOSR, 2005
National Science Foundation CAREER Award, 2005
National Institutes of Health Postdoctoral Fellowship, 2001-2003
DuPont Postdoctoral Fellowship, Northwestern University 2001-2003
Marshall Scholarship, British Government, 1997-2000
Materials Research Society Graduate Student Gold Award, 2000
National Science Foundation Graduate Research Fellowship, 1999-2001
American Chemical Society Division of Nuclear Chemistry Charles D. Coryell Award, 1997
American Physical Society Apker Award Finalist, 1997
Phi Beta Kappa, Sigma Pi Sigma, James C. White Senior Award, Indiana University Department of Chemistry, 1997; Arthur R. Metz Scholar, Indiana University, 1993-1997; Courson Greeves Prize, Indiana University Department of Chemistry; 1996, Lubrizol Scholarship in Chemistry, Indiana University Department of Chemistry, 1996; Harry G. Day Scholarship, Indiana University Department of Chemistry, 1996; R. J. Grim Chemistry Scholarship, Indiana University Department of Chemistry, 1995/1996; Frank P. Mathers Scholarship, Indiana University Department of Chemistry, 1995; National Science Olympiad Honda Foundation Scholarship, 1993; Salutatorian, Centerville High School, OH, 1993

Professional Service Activities

Co-Chair, Gordon Conference on Electronic Processes in Organic Materials, 2016
Associate Editor, Chemical Reviews, 2015-present
Editorial Advisory Board, ACS Nano 2013-present
Editorial Advisory Board, ACS Photonics 2013-present
Associate Director, UW Clean Energy Institute, 2013-present
Editorial Committee, Annual Review of Physical Chemistry 2012-2016 term
Organizer, ORCAS 2012 Conference on Energy Conversion, Friday Harbor, 2012
Symposium Organizer, ACS "Award for Creative Invention: Symposium in Honor of Chad A. Mirkin" 2012
Co-Editor, MRS Bulletin Special Issue "Scanning Probes of Local Phenomena in Energy Related Materials" 2012
Associate Director, UW Advanced Materials for Energy Institute 2011-2013
Symposium Organizer, MRS "Novel Fabrication Methods for Electronic Devices" 2010
Discussion Leader, Gordon Conference, Electronic Processes in Organic Materials 2010
Symposium Organizer, ACS "New Developments in Energy Conversion and Light Harvesting" 2009
Organizing Committee, ACS/RSC/GDCh "Trans-Atlantic Frontiers in Chemistry '08", 2007-2008
Symposium Organizer, MRS "Nanostructured Solar Cells" 2007

Patents and Invention

1) Patent Application; entitled "Compositions and Methods for Photocontrolled Hybridization and Dehybridization of a Nucleic Acid" provisional Serial Number 13/681,209 Filed Nov. 19, 2012.
2) US Patent: "Sub-microsecond resolution probe microscopy", Serial Number 13/232,859. Filed Sept. 14, 2011
3) US Patent: Peptide and Protein Arrays and Direct-Write Lithographic Printing of Peptides and Proteins. Patent Number: 7,842,344 Issued: November 30, 2010 (Chad Mirkin, Jung-Hyurk Lim, David Ginger, Jwa-Min Nam, Ki-Bum Lee, Albena Ivanesivic)

Publications (as of 5/1/2015, total ISI citations=6400+, h=41, total Google Scholar citations=8400+, h=44)

115. "Impact of microstructure on local carrier lifetime in perovskite solar cells" Dane W. deQuilettes, Sarah M. Vorpahl, Samuel D. Stranks, Hirokazu Nagaoka, Giles E. Eperon, Mark E. Ziffer, Henry J. Snaith, and David S. Ginger Science DOI: 10.1126/science.aaa5333 (2015)

114. "Zr Incorporation into TiO2 Electrodes Reduces Hysteresis and Improves Performance in Hybrid Perovskite Solar Cells while Increasing Carrier Lifetimes" Hirokazu Nagaoka, Fei Ma, Dane W. deQuilettes, Sarah M. Vorpahl, Micah S. Glaz, Adam E. Colbert, Mark E. Ziffer, and David S. Ginger *J. Phys. Chem. Lett.* 6 pp669-675 (2015)

113. "Nanoscale Surface Potential Variation Correlates with Local S/Se Ratio in Solution-Processed CZTSSe Solar Cells" Michael Salvador, Sarah M Vorpahl, Hao Xin, Wesley Williamson, Guozheng Shao, Durmus U Karatay, Hugh W Hillhouse, David S Ginger, *Nano Letters* DOI: 10.1021/nl503068h ASAP (2014)

112. "Intensity-Modulated Scanning Kelvin Probe Microscopy for Probing Recombination in Organic Photovoltaics" Guozheng Shao, Micah S. Glaz, Fei Ma, Huanxin Ju, and David S. Ginger *ACS Nano* 8 (10) pp 10799-10807 (2014)

111. "Suppressed Charge Recombination in Inverted Organic Photovoltaics via Enhanced Charge Extraction by Using a Conductive Fullerene Electron Transport Layer" Chang-Zhi Li, Chih-Yu Chang, Yue Zang, Huan-Xin Ju, Chu-Chen Chueh, Po-Wei Liang, Namchul Cho, David S. Ginger, and Alex K.-Y. Jen *Advanced Materials* DOI: 10.1002/adma.201402276 (2014)

110. "Performance Limits of Plasmon-Enhanced Organic Photovoltaics" Durmus U. Karatay, Michael Salvador, Kai Yao, Alex K.-Y. Jen, and David S. Ginger *Appl. Phys. Lett.* v105 033304 (2014)

109. "How disorder controls the kinetics of triplet charge recombination in semiconducting organic polymer photovoltaic materials" Eric R. Bittner, Vladimir Lankevic, Simon Gelinas, Akshay Rao, David S. Ginger, Richard H. Friend Phys. *Chem. Chem. Phys.* DOI: 10.1039/C4CP01776E (2014)

108. "Edge-Gold-Coated Silver Nanoprisms: Enhanced Stability and Applications in Organic Photovoltaics and Sensing" Mohammad M. Shahjamalim, Michael Salvador, Michel Bosman, David S. Ginger, and Can Xue *J. Phys. Chem. C.* 118 (23) pp 12459-12468 (2014)

107. "High-Dielectric Constant Side-Chain Polymers Show Reduced Non-Geminate Recombination in Heterojunction Solar Cells"Namchul Cho, Cody W. Schlenker, Kristina M. Knesting, Patrick Koelsch, Hin-Lap Yip, David S. Ginger, and Alex K.-Y. Jen *Advanced Energy Materials* DOI 10.1002/aenm.201301857 (2014)

106. "A General Route to Enhance Polymer Solar Cell Performance using Plasmonic Nanoprisms" Kai Yao, Michael Salvador, Chu-Chen Chueh, Xu-Kai Xin, Yun-Xiang Xu, Dane W. deQuilettes, Ting Hu, Yiwang Chen, David S. Ginger, and Alex K.-Y. Jen *Advanced Energy Materials* DOI: 10.1002/aenm.201400206 (2014)

105. "Size-Dependent Charge Transfer Yields in Conjugated Polymer/Quantum Dot Blends"Hirokazu Nagaoka, Adam E. Colbert, Elisabeth Strein, Eric M. Janke, Michael Salvador, Cody W. Schlenker, and David S. Ginger *J. Phys. Chem. C.* 118 (11) pp 5710-5715 (2014)

104. "Dynamic Force Spectroscopy of Photoswitch-Modified DNA" Esha Sengupta, Yunqi Yan, Xin Wang, Keiko Munechika, and David S. Ginger *ACS Nano* DOI:10.1021/nn406334b (2014)

103. "Direct Measurement of Acceptor Group Localization on Donor-Acceptor Polymers Using Resonant Auger Spectroscopy" Matthew Gliboff, Dana Sulas, Dennis Nordlund, Dane W. DeQuilettes, Phu D. Nguyen, Gerald T. Seidler, Xiaosong Li, and David S. Ginger *J. Phys. Chem. C* DOI:10.1021/jp412150j (2014)

102. "Hot Hole Transfer Increases Polaron Yields in Hybrid Conjugated Polymer/PbS Blends" Elisabeth Strein, Dane W. deQuilettes, Stephen T. Hsieh, Adam E. Colbert, and David S. Ginger *J. Phys. Chem. Lett.* 5 pp 208-211 (2014)

101. "ITO Interface Modifiers Can Improve VOC in Polymer Solar Cells and Suppress Surface Recombination", Kristina M. Knesting, Huanxin Ju, Cody W. Schlenker, Anthony J. Giordano, Andres Garcia, O'Neil L. Smith, Dana C. Olson, Seth R. Marder, David S. Ginger, *J. Phys. Chem. Lett.* 4 (23) pp 4038-4044 (2013).

100. "Mapping Nanoscale Variations in Photochemical Damage of Polymer/Fullerene Solar Cells with Dissipation Imaging" Phillip A. Cox, Dean A. Waldow, Torin J. Dupper, Stephen Jesse, and David S. Ginger, *ACS Nano*, DOI:10.1021/nn404920t (2013)

99. "Kinetic Control of Recombination in Organic Photovoltaics: The Role of Spin," Akshay Rao, Phillip C.Y. Chow, Simon Gelinas, Cody W. Schlenker, Chang-Zhi Li, Hin-Lap Yip, Alex K.-Y. Jen, David S. Ginger, and Richard H. Friend, *Nature* 500, 435 (2013)

98. "Competing Effects of Fluorination on the Orientation of Aromatic and Aliphatic Phosphonic Acid Monolayers on Indium Tin Oxide" Gliboff, Matthew; Li, Hong; Knesting, Kristina; Giordano, Anthony; Nordlund, Dennis; Seidler, Gerald; Bredas, Jean-Luc; Marder, Seth; Ginger, David, *J. Phys. Chem. C* 117, pp15139-15147, (2013)

97. "Photoisomerization Quantum Yield of Azobenzene-Modified DNA Depends on Local Sequence" Yunqi Yan, Jennifer I. L. Chen, David, S. Ginger *J. Am. Chem. Soc.* 135 (22) pp8382-8387 (2013)

96. "Photoinduced Hole Transfer Becomes Suppressed with Diminished Driving Force in Polymer-Fullerene Solar Cells While Electron Transfer Remains Active" Guoqiang Ren, Cody W. Schlenker, Eilaf Ahmed, Selvam Subramaniyan, Selina Olthof, Antoine Kahn, David S. Ginger, and Samson A. Jenekhe *Adv. Funct. Mater.23* (16) pp1238-1249 (2013)

95. "Charge generation and energy transfer in hybrid polymer/infrared quantum dot solar cells" Elisabeth Strein, Adam Colbert, Selvam Subramaniyan, Hirokazu Nagaoka, Cody W. Schlenker, Eric Janke, Samson A. Jenekhe, and David. S. Ginger, *Energy & Environmental Science* 6 pp769-775 (2013)

94. "Orientation of Phenylphosphonic Acid Self-Assembled Monolayers on a Transparent Conductive Oxide: A Combined NEXAFS, PM-IRRAS, and DFT Study" Matthew Gliboff, Lingzi Sang, Kristina M. Knesting, Matthew C. Schalnat, Anoma Mudalige, Erin L. Ratcliff, Hong Li, Ajaya K. Digdel, Anthony J. Giordano, Joseph J. Berry, Dennis Nordlund, Gerald T. Seidler, Jean-Luc Bredas, Seth R. Marder, Jeanne E. Pemberton, and David S. Ginger, *Langmuir* 29 (7) pp2166-2174 (2013)

93. "A one pot organic/CdSe nanoparticle hybrid material synthesis with in situ pi-conjugated ligand functionalization " Katherine A. Mazzio , Ken Okamoto , Zhi Li , Sebastian Gutmann , Elisabeth Strein , David S. Ginger , Rudy Schlaf and Christine K. Luscombe , *Chem. Comm.* 49 pp1321-1323 (2013)

92. "Hole Transfer from Low Band Gap Quantum Dots to Conjugated Polymers in Organic/Inorganic Hybrid Photovoltaics" Adam E. Colbert, Eric M. Janke, Stephen T. Hsieh, Selvam Subramaniyan, Cody W. Schlenker, Samson A. Jenekhe, and David S. Ginger, *J. Phys. Chem. Lett.* 4 (2) pp280-284 (2013)

91. "Polymer triplet energy levels need not limit photocurrent collection in organic solar cells," Cody W. Schlenker, Kung-Shih Chen, Hin-Lap Yip, Chang-Zhi Li, Liam R. Bradshaw, Stefan T. Ochsenbein, Feizhi Ding, Xiaosong Scott Li, Daniel R. Gamelin, Alex K.-Y. Jen, and David S. Ginger, *J. Am. Chem. Soc.* 134 (48) pp19661-19668 (2012)

90. "Electron Accumulation on Metal Nanoparticles in Plasmon-Enhanced Organic Solar Cells," Michael Salvador, Bradley A. MacLeod, Angela Hess, Abhishek P. Kulkarni, Keiko Munechika, Jennifer I. L. Chen, and David S. Ginger, *ACS Nano* 6 (11) pp10024-10032 (2012)

89. "Scanning probes for new energy materials: Probing local structure and function" Nina Balke, Dawn Bonnell, David S. Ginger, and Martijn Kemerink *MRS Bulletin* 37(7) pp633-637 (2012).

88. *"*Halogen-free solvent processing for sustainable development of high efficiency organic solar cells," Kung-Shih Chen, Hin-Lap Yip, Cody W. Schlenker, David S. Ginger, and Alex K.-Y. Jen, *Org. Electron*. DOI 10.1016/j.orgel.2012.08.026 (2012).

87. "Built-in Potential in Conjugated Polymer Diodes with Changing Anode Work Function: Interfacial States and Deviation from the Schottky-Mott Limit," Bradley A. MacLeod, Noah Elliot Horwitz, Erin L. Ratcliff, Judith L. Jenkins, Neal R. Armstrong, Anthony J. Giordano, Peter J. Hotchkiss, Seth R. Marder, Charles T. Campbell, and David S. Ginger, *J. Phys. Chem. Lett.* 3 (9) pp1202-1207 (2012).

86. "Electron-Transfer Processes in Zinc Pthalolcyanine-Phosphonic Acid Monolayers on ITO: Characterization of Orientation and Charge-Transfer Kinetics by Waveguide Spectroelectrochemistry" Hsiao-Chu Lin, Nathan W. Polaske, Luis E. Oquendot, Matthew Gliboff, Kristina M. Knesting, Dennis Nordlund, David S. Ginger, Erin L. Ratcliff, Brooke M. Beam, Neal R. Armstrong, Dominic V. McGrath, and S. Scott. Saavedra *J. Phys. Chem. Lett.* 3 (9) pp1154-1158 (2012).

85. *"*Photoswitchable Oligonucleotide-Modified Gold Nanoparticles: Controlling Hybridization Stringency with Photon Dose" Yunqi Yan, Jennifer I. L. Chen, and David. S. Ginger, *Nano Letters* 12 (5) pp2530-2536 (2012)

84. "Sub-Microsecond Time Resolution Atomic Force Microscopy for Probing Nanoscale Dynamics" Rajiv Giridharagopal, Glennis E. Rayermann, Guozheng Shao, David T. Moore, Obadiah G. Reid, Andreas F. Tillack, David. J. Masiello, David. S. Ginger, *Nano Letters* 12 (2) pp893-898 (2012)

83. "Spatially Modifying Interfacial Properties of Transparent Conductive Oxides: Patterning Work Function with Phosphonic Acid Self-Assembled Monolayers" *Advanced Materials* 24 (5) pp642-646 (2012)

82. "Photoinduced Charge Transfer and Polaron Dynamics in Polymer and Hybrid Photovoltaic Thin Films: Organic vs Inorganic Acceptors", Kevin M. Noone, Selvam Subramaniyan, Qifeng Zhang, Guozheng Cao, Samson A. Jenekhe, and David S. Ginger *J. Phys. Chem. C* 115 (49) pp24403-24410 (2011)

81. "Plasmonic enhancement of Raman Scattering from the organic solar cell material P3HT/PCBM by triangular silver nanoprisms", Marina Stavytska-Barba, Michael Salvador, Abhishek Kulkarni, David S. Ginger, and Anne Meyers Kelley, *J. Phys. Chem. C* 115 (42) pp20788-20794 (2011)

80. "Optical Detection of Protein in Complex Media with Plasmonic Nanoparticle Dimers" J. I. L. Chen, H. Durkee, B. Traxler, D. S. Ginger, *Small*, 7 (14) pp1993-1997 (2011)

79. "Quantum Dot/Plasmonic Nanoparticle Metachromophores with Quantum Yields That Vary with Excitation Wavelength" K. Munechika, Y. Chen, A. Tillack, A. P. Kulkarni, I. Jen-La Plante, A. M. Munro, *Nano Letters*, 11 (7) pp2725-2730 (2011)

78. "Surface Characterization of Polythiophene:Fullerene Blends on Different Electrodes using Near Edge X-ray Absorption Fine Structure", Andreas F. Tillack, Kevin M. Noone, Bradley A. MacLeod, Dennis Nordlund, Kenneth P. Nagle, Joseph P. Bradley, Steven K. Hau, Hin-Lap Yip, Alex K.-Y. Jen, Gerald T. Seidler, David. S. Ginger *ACS Applied Materials and Interfaces 3 (3) pp 726-732 (2011)*

77. "Controlling Vertical Morphology within the Active Layer of Organic Photovoltaics Using Poly(3-hexylthiophene) Nanowires and Phenyl-C61-butyric Acid Methyl Ester", Andrew H. Rice, Rajiv Giridharagopal, Sam X. Zheng, Fumio S. Ohuchi, David S. Ginger, and Christine K. Luscombe *ACS Nano* 5(4) pp 3132-3140 (2011)

76. "Imaging Local Trap Formation in Conjugated Polymer Solar Cells: A Comparison of Time-Resolved Electrostatic Force Microscopy and Scanning Kelvin Probe Imaging", Obadiah G. Reid, Glennis E. Rayermann, David C. Coffey, and David S. Ginger *J. Phys. Chem. C* 114 (48) pp20672-20677 (2010).

75. "Nanostructure Determines the Intensity Dependence of Open Circuit Voltage in Plastic Solar Cells," O. G. Reid, H. Xin, S. A. Jenekhe, D. S. Ginger, *J. Appl. Phys.* 108 (8) 084320 (2010) (2010).
74. "Plasmonic Nanoparticle Dimers for Optical Sensing of DNA in Complex Media," J. I. L. Chen, Y. Chen, D. S. Ginger, *J. Am. Chem. Soc.,* 132, 9600 (2010).
73. "Broadband Absorbing Bulk Heterojunction Photovoltaics Using Low-Bandgap Solution-Processed Quantum Dots," K. M. Noone, E. Strein, N. C. Anderson, P. T. Wu, S. A. Jenekhe, D. S. Ginger, *Nano Lett.* 10, 2635-2639 (2010)
72. "Cooperative Near-Field Surface Plasmon Enhanced Quantum Dot Nanoarrays," K. Leong, Y. Chen, D. J. Masiello, M. T. Zin, M. Hnilova, H. Ma, C. Tamerler, M. Sarikaya, D. S. Ginger, A. K.-Y. Jen, *Adv. Funct. Mater.* 20, 2675 (2010).
71. "Concerted Emission and Local Potentiometry of Light-emitting Electrochemical Cells", D. B. Rodovsky, O. G. Reid, L. S. C. Pingree, D. S. Ginger, *4* (5) pp2673-2680, (2010).
70. "Characterizing Morphology in Bulk Heterojunction Organic Photovoltaic Systems" R. Giridharagopal, D. S. Ginger, invited perspective *in. J. Phys. Chem. Letters,* 1 (7) pp1160-1169 (2010).
69. "Spectral Control of Plasmonic Emission Enhancement from Quantum Dots near Single Silver Nanoprisms" K. Munechika, Y. Chen, A. Tillack, A. Kulkarni, I. Jen-La Plante, A. M. Munro, D. S. Ginger, *Nano Letters,* 10, 2598-2603 (2010).
68. "Plasmon-Enhanced Charge Carrier Generation in Organic Photovoltaic Films Using Silver Nanoprisms" A. P. Kulkarni, K. M. Noone, K. Munechika, S. R. Guyer, D. S. Ginger, *Nano Letters,* 1 (7) pp1501-1505 (2010).
67. "Polymer Nanowire/Fullerene Bulk Heterojunction Solar Cells: How Nanostructure Determines Photovoltaic Properties", H. Xin, O.G. Reid, D. S. Ginger, S. A. Jenekhe, *ACS Nano* 4 (4) 1861-1872 (2010).
66. "Heterogeneity in Polymer Solar Cells: Local Morphology and Performance in Organic Photovoltaics Studied with Scanning Probe Microscopy", Chris Groves, Obadiah G. Reid, David S. Ginger, (*invited) Accounts of Chemical Research,* 43 (5) pp612-620 (2010).
65. "Importance of Spectra Overlap: Fluorescence Enhancement by Single Metal Nanoparticles", Keiko Munechika, Yeechi Chen, Jessica M. Smith, David S. Ginger, in *Metal Enhanced Fluorescence,* C. D. Geddes, Ed. (Wiley), 2010.
64. "Imaging the evolution of nanoscale photocurrent collection and transport networks during annealing of polythiophene/fullerene solar cells", Liam S. C. Pingree, Obadiah G. Reid, David S. Ginger", *Nano Letters*, **9**, 2946 (2009).
63. "Phase Transfer of Large Anisotropic Plasmon Resonant Silver Nanoparticles from Aqueous to Organic Solution", Abhishek P. Kulkarni, Keiko Munechika, Kevin M. Noone, Jessica M. Smith, David S. Ginger, *Langmuir* **25**, 7932 (2009).
62. "Absence of Long-Lived Photoinduced Charge Transfer in Blends of PbSe Quantum Dots and Conjugated Polymers" K. M. Noone, A. M. Munro, N. C. Anderson, N. Horwitz, A. P. Kulkarni and D. S. Ginger, *ACS Nano*, **3**, 1351, (2009).
61. "Doping for Speed: Colloidal Nanoparticles for Thin-Film Optoelectronics" K. M. Noone and D. S. Ginger, *ACS Nano*, **3**, 261 (2009).
60. "Nanopatterning Peptides as Bi-Functional Inks for Templated Assembly", J. H. Wei, T. Kacar, C. Tamerler, M. Sarikaya, D. S. Ginger, *Small* **5**, 689 (2009).
59. "The Role of Mesoscopic PCBM Crystallites in Solvent Vapor Annealed Copolymer Solar Cells" T.A. Bull, L. S. C. Pingree, S. A. Jenekhe, D. S. Ginger, C. K. Luscombe, *ACS Nano*, **3**, 627,(2009).
58. "Electrical Scanning Probe Microscopy on Active Organic Electronic Devices," L. S. C. Pingree, O. G. Reid, D. S. Ginger, *Adv. Mater.* **21**, 19 (2009).
57. "Controlling Film Morphology in Conjugated Polymer:Fullerene Blends with Surface Patterning," L. Y. Park, A. M. Munro, D. S. Ginger, *J. Am. Chem. Soc.* **130**, 15916 (2008).
56. "Excitation Enhancement of CdSe Quantum Dots by Single Metal Nanoparticles", Y. Chen, K. Munechika, I. Jen-La Plante, A. M. Munro, S. E. Skrabalak, Y. Xia, D. S. Ginger, *Appl. Phys. Lett.* 93, 053106 (2008).

55. "Photoluminescence Quenching of Single CdSe Nanocrystals by Ligand Adsorption," A. M. Munro, D. S. Ginger, *Nano Letters* 8, 2585-2590, (2008).
54. "Bioenabled Nanophotonics" Y. Chen, K. Munechika, D. S. Ginger, *MRS Bulletin*, invited review, 33, 536-542 (2008).
53. "Space Charge Limited Current Measurements on Conjugated Polymer Films using Conductive Atomic Force Microscopy," O. G. Reid, K. Munechika, D. S. Ginger, *Nano Letters,* 8, 1602-1609, (2008).
52. "The changing face of PEDOT:PSS films: substrate, bias, and processing effects on vertical charge transport" L. S. C. Pingree, B. A. MacLeod, D. S. Ginger, *J. Phys. Chem. C.*, 112, 7922-7927, (2008).
51. "Electroluminescence from Colloidal CdSe Quantum Dots: Ligand Effects and Light-Emitting Diodes," A. M. Munro, J. A. Bardecker, M. S. Liu, Y.-J. Cheng, Y. Niu, I. J.-L. Plante, A. K.-Y. Jen, D. S. Ginger, *Microchimica Acta*, 160, 345-350 (2008).
50. "Scanning Kelvin Probe Imaging of the Potential Profiles in Fixed and Dynamic Planar LECs," L. S. C. Pingree, D. B. Rodovsky, D. C. Coffey, G. P. Bartholomew, D. S. Ginger, *J. Am. Chem. Soc.,* 129, 15903-15910 (2007)
49. "Plasmon Linewidths of Single Silver Nanoprisms as a Function of Particle Size and Plasmon Peak Position," K. Munechika, J. M. Smith, Y. Chen, D. S. Ginger, *J. Phys. Chem. C* **111**, 18906-18911 (2007).
48. "A Direct-Write Single Step Positive Etch Resist for Dip-Pen Nanolithography," J. H. Wei and D. S. Ginger, *Small*, 3, 2034-2037 (2007).
47. "Improved performance from multilayer quantum-dot light-emitting diodes via thermal annealing of the quantum-dot layer," Y. Niu, A. M. Munro, Y.-J. Cheng, Y. Tian, M. S. Liu, J. Zhao, J. A. Bardecker, I. J.-L. Plante, D. S. Ginger, A. K.-Y. Jen, *Adv. Mater,* 19, 3371-3376 (2007).
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45. "Quantitative Study of the Effects of Surface Ligand Concentration on CdSe Nanocrystal Photoluminescence," A. M. Munro, I. J.-L. Plante, M. S. Ng, D. S. Ginger, *J. Phys. Chem. C*, 111, 6220 - 6227 (2007).
44. "Mapping Local Photocurrents in Polymer/Fullerene Solar Cells with Photoconductive Atomic Force Microscopy," D. C. Coffey, O. G. Reid, D. B. Rodovsky, G. T. Bartholomew, D. S. Ginger, *Nano Letters*, 7, 738-744 (2007).
43. "Dependence of fluorescence intensity on the spectral overlap between fluorphores and plasmon resonant single silver nanoparticles," Y. Chen, K. Munechika, D. S. Ginger, *Nano Letters*, 7, 690-696 (2007).
42. "Peptide-Mediated Formation of Surface-Immobilized Quantum Dot Hybrid Nanoassemblies with Controlled Photoluminescence Properties," M. T. Zin, A. M. Munro, M. Gungormus, H. Ma, C. Tamerler, D. S. Ginger, M. Sarikaya, A. K.-Y. Jen, *J. Mater. Chem.* 17, 866 (2007).
41. "Nucleating pattern formation in spin-coated polymer blend films with nanoscale surface templates," J. H. Wei, D. C. Coffey, D. S. Ginger, *J. Phys. Chem. B* 110, 24324 (2006).
40. "Time-Resolved Electrostatic Force Microscopy of Polymer Solar Cells," D. C. Coffey, D. S. Ginger, *Nature Materials* 5, 735-740, (2006).
39. "Efficient CdSe/CdS Quantum Dot Light-Emitting Diodes Using a Thermally Polymerized Hole Transport Layer," J. Zhao, J. A. Bardecker, A. M. Munro, M. S. liu, Y. Niu, I.-K. Ding, J. Luo, B. Chen, A. K.-Y. Jen, D. S. Ginger, *Nano Letters* 6, 463 (2006).
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36. "Top-Down Meets Bottom-Up: Dip-Pen Nanolithography and DNA-Directed Assembly of Nanoscale Electrical Circuits," S. W. Chung, D. S. Ginger, M. Morales, Z. Zhang, V. Chandrasekhar, M. A. Ratner, C. A. Mirkin, *Small* 1, 64 (2005).
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33. "Direct-write dip-pen nanolithography of proteins on modified silicon oxide surfaces," J. H. Lim, D. S. Ginger, K. B. Lee, J. Heo, J. M. Nam, C. A. Mirkin, *Angew. Chem. Int. Ed.* 42, 2309 (2003).
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29. "Electrical and optical properties of semiconductor nanocrystals," C. E. Finlayson, D. S. Ginger, E. Marx, N. C. Greenham, *Phil. Trans. of the Royal Soc. London Series A* 361, 363 (2003).
28. "Adsorption behavior and current-voltage characteristics of CdSe nanocrystals on hydrogen-passivated silicon," K. Walzer, U. J. Quaade, D. S. Ginger, N. C. Greenham, K. Stokbro, *J. Appl. Phys.* 92, 1434 (2002).
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25. "Triplet formation and decay in conjugated polymer devices," A. S. Dhoot, D. S. Ginger, D. Beljonne, Z. Shuai, N. C. Greenham, *Chem. Phys. Lett.* 360, 195 (2002).
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21. "Enhanced Forster energy transfer in organic/inorganic bilayer optical microcavities," C. E. Finlayson, D. S. Ginger, N. C. Greenham, *Chem. Phys. Lett.* 338, 83 (2001).
20. "Thermal excitation-energy deposition in 5-15 GeV/c hadron-induced reactions with Au-197. II. Relation between excitation energy and reaction variables," L. Beaulieu, T. Lefort, K. Kwiatkowski, W. C. Hsi, G. Wang, D. S. Bracken, E. Cornell, D. S. Ginger, K. B. Morley, W. E. Viola, F. Gimeno-Nogues, R. Laforest, E. Martin, E. Ramakrishnan, D. Rowland, A. Ruangma, E. Winchester, S. J. Yennello, R. G. Korteling, L. Pienkowski, H. Breuer, B. Back, S. Gushue, L. R. Remsberg, M. J. Huang, W. G. Lynch, M. B. Tsang, H. Xi, *Phys. Rev. C* 64, 064604 (2001).
19. "Electrical injection and transport in films of semiconductor nanocrystals," D. S. Ginger, N. C. Greenham, *Mat. Res. Soc. Symp. Proc.* 571, 185 (2000).
18. "Charge injection and transport in films of CdSe nanocrystals," D. S. Ginger, N. C. Greenham, *J. Appl. Phys.* 87, 1361 (2000).
17. "Long-lived quantum-confined infrared transitions in CdSe nanocrystals," D. S. Ginger, A. S. Dhoot, C. E. Finlayson, N. C. Greenham, *Appl. Phys. Lett.* 77, 2816 (2000).
16. "Optical microcavities using highly luminescent films of semiconductor nanocrystals," C. E. Finlayson, D. S. Ginger, N. C. Greenham, *Appl. Phys. Lett.* 77, 2500 (2000).
15. "Electronic interaction between photoexcited poly(p-phenylene vinylene) and carbon nanotubes," H. Ago, M. S. P. Shaffer, D. S. Ginger, A. H. Windle, R. H. Friend, *Phys. Rev. B* 61, 2286 (2000).
14. "Photoinduced electron transfer from conjugated polymers to CdSe nanocrystals," D. S. Ginger, N. C. Greenham, *Phys. Rev. B* 59, 10622 (1999).
13. "Charge separation in conjugated-polymer/nanocrystal blends," D. S. Ginger, N. C. Greenham, *Synth. Met.* 101, 425 (1999)
12. "Exclusive studies of 130-270 MeV He-3 and 200-MeV proton-induced reactions on Al-27, Ag-nat, and Au-197" D. S. Ginger, K. Kwiatkowski, G. Wang, W.-c. Hsi, S. Hudan, E. Cornell, R. T. deSouza, V. E. Viola, and R. G. Korteling, *Phys. Rev. C.,* **78**, 034601, (2008).

11. "Light-ion-induced multifragmentation: The ISiS project", V. E. Viola, K. Kwiatkowski, L. Beaulieu, D. S. Bracken, H. Breuer, J. Brzchczyk, R. T. deSouza, D. S. Ginger, W.-c. Hsi, R. G. Korteling, T. Lefort, W. G. Lynch, K. B. Morley, R. Legrain, L. Pienkowski, E. C. Pollacco, E. Renshaw, A. Ruangma, M. B. Tsang, C. Volant, G. Wang, S. J. Yennello, N. R. Yoder, *Phys. Reports.* **434**, 1, (2006).
10. "Effects of in-medium cross sections and optical potential on thermal-source formation in p+Ag-197 reactions at 6.2-14.6 GeV/c" S. Turbide, L. Beaulieu, P. Danielewicz, V. E. Viola, R. Row, K. Kwiatkowski, W.-c. Hsi, G. Wang, T. Lefort, D. S. Bracken, H. Breuer, E. Cornell, F. Gimeno-Nogues, D. S. Ginger, S. Gushue, R. Huang, R. Korteling, W. G. Lynch, K.B. Morley, E. Ramakrishnan, L. P. Remsberg, D. Rowland, M. B. Tsang, H. Xi, S. J. Yennello, *Phys. Rec. C.,* **70**, 014608 (2004).
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8. "Exclusive studies of angular distributions in GeV hadron- induced reactions with Au-197," W. C. Hsi, K. Kwiatkowski, G. Wang, D. S. Bracken, E. Cornell, D. S. Ginger, V. E. Viola, R. G. Korteling, K. B. Morley, R. Huang, W. G. Lynch, M. B. Tsang, H. Xi, F. Gimeno-Nogues, E. Ramakrishnan, D. Rowland, S. J. Yennello, H. Breuer, S. Gushue, L. P. Remsberg, A. Botvina, W. A. Friedman, *Phys. Rev. C* 6003, 034609 (1999)
7. "Thermal excitation of heavy nuclei with 5-15 GeV/c antiproton, proton and pion beams," L. Beaulieu, K. Kwiatkowski, W. C. Hsi, T. Lefort, L. Pienkowski, R. G. Korteling, G. Wang, B. Back, D. S. Bracken, H. Breuer, E. Cornell, F. Gimeno-Nogues, D. S. Ginger, S. Gushue, M. J. Huang, R. Laforest, W. G. Lynch, E. Martin, K. B. Morley, L. P. Remsberg, D. Rowland, E. Ramakrishnan, A. Ruangma, M. B. Tsang, V. E. Viola, E. Winchester, H. Xi, S. J. Yennello, *Phys. Lett. B* 463, 159 (1999).
6. "Multifragmentation: thermal vs. dynamic effects," K. Kwiatkowski, W. C. Hsi, V. E. Viola, G. Wang, D. S. Bracken, H. Breuer, E. Cornell, E. R. Foxford, F. Gimeno-Nogues, D. S. Ginger, S. Gushue, R. G. Korteling, W. G. Lynch, K. B. Morley, E. C. Pollacco, E. Ramakrishnan, L. P. Remsberg, M. B. Tsang, C. Volant, S. J. Yennello, H. Xi, N. R. Yoder, *Nucl. Phys. A* 630, 168C (1998).
5. "Sideways-peaked angular distributions in hadron-induced-multifragmentation: Shock waves, geometry, or kinematics?," W. C. Hsi, K. Kwiatkowski, G. Wang, D. S. Bracken, E. Cornell, D. S. Ginger, V. E. Viola, N. R. Yoder, R. G. Korteling, F. Gimeno-Nogues, E. Ramakrishnan, D. Rowland, S. J. Yennello, R. Huang, W. G. Lynch, M. B. Tsang, H. Xi, H. Breuer, K. B. Morley, S. Gushue, L. P. Remsberg, W. A. Friedman, A. Botvina, *Phys. Rev. C* 58, R13 (1998).
4. "Probing the nuclear EOS with GeV light-ion beams," V. E. Viola, W. C. Hsi, K. Kwiatkowski, G. Wang, D. S. Bracken, H. Breuer, J. Brzychczyk, Y. Y. Chu, E. Cornell, E. R. Foxford, F. Gimeno-Nogues, D. Ginger, S. Gushue, M. J. Huang, R. G. Korteling, R. Legrain, W. G. Lynch, K. B. Morley, E. C. Pollacco, E. Ramakrishnan, L. P. Remsberg, D. Rowland, M. B. Tsang, C. Volant, H. Xi, S. J. Yennello, N. R. Yoder, *Nucl. Phys. A* 626, 287C (1997).
3. "Formation of hot nuclei with GeV p and pi(-) beams," W. C. Hsi, K. Kwiatkowski, G. Wang, D. S. Bracken, E. Cornell, D. S. Ginger, V. E. Viola, N. R. Yoder, R. G. Korteling, F. GimenoNogures, E. Ramakrishnan, D. Rowland, S. J. Yennello, M. J. Huang, W. G. Lynch, M. B. Tsang, H. Xi, Y. Y. Chu, S. Gushue, L. P. Remsberg, K. B. Morley, H. Breuer, *Phys. Rev. Lett.* 79, 817 (Aug 4, 1997).
2. "Light-Ion-Induced Multifragmentation: A Fast Evolutionary Process," V. E. Viola, D. S. Bracken, E. R. Foxford, D. Ginger, R. G. Korteling, K. Kwiatkowski, R. Legrain, K. B. Morley, E. C. Pollacco, W.-C. Hsi, G. Wang, in *Advances in Nuclear Dynamics 2* W. Bauer, G. Westfall, Eds. (Plenum Press, New York, 1996) 57.
1. "Dynamics of GeV Light-Ion-Induced Reactions," K. Kwiatkowski, D. S. Bracken, E. Renshaw-Foxford, D. S. Ginger, W.-C. Hsi, R. G. Korteling, R. Legrain, E. C. Pollacco, V. E. Viola, C. Volant, G. Wang, in *Critical Phenomena and Collective Observables* S. C. e. al., Ed. (World Scientific, Singapore, 1996) 357.

Invited Lectures and Presentations (*=invited talks)

Presentations while at UW

134. *Materials Research Society Spring Meeting, Apr. 6-10, 2015
134. *University of Wisconsin, Physical Chemistry Seminar, Feb. 11, 2015
133. *Materials Research Society Fall Meeting, Nov. 30- Dec. 5, 2014
132. *University of Texas at Austin, Chem. Dept., Nov. 6, 2014
131. *Northwestern University, International Institute of Nanotechnology Symposium, Oct. 9, 2014
130. *Simon Fraser University, Chem. Dept. Seminar, September 10 2014
129. *University of Victoria, Chem. Dept. Seminar, September 9 2014
128. *University of British Columbia, Chem. Dept. Seminar, September 8 2014
127. *U. Penn, Chemistry, Deptartmental Seminar, September 2 2014
126. *Georgia Institute of Technology, Physical Chemistry Seminar, September. 3 2014
125. *SPIE Meeting, San Diego, CA, Aug. 17, 2014
124. *Fall ACS Meeting, (COLL) San Francisco, CA, Aug. 14, 2014
123. *Fall ACS Meeting, (PMSE) San Francisco, CA, Aug. 10, 2014
122. *U. Penn, Materials Science Seminar, May 2014
121. (vice-chair) Gordon Conference, Electronic Processes in Organic Materials, Barga, Italy, May 4-9, 2014
120. *Spring MRS Meeting, San Francisco, April 22-24, 2014
119. *Oregon State University, Physics Colloquium, April 7, 2014
118. *Nano/Giga Challenge Meeting, Phoenix AZ, March 10-14, 2014
117. *Fall MRS Meeting, Boston, MA, Dec 1-6, 2013
116. *ECME: European Conference on Molecular Electronics, London, U.K. Sep. 3-7, 2013
115. *16th Int. Conf. on Non-Contact AFM, Maryland, Aug 5-9, 2013
114. *Air Force Research Lab, Wright-Patterson AFB, July 22, 2013
113. *Advances in Structural and Chemical Imaging (ASCI 2013), Eugene, OR, May 29-30, 2013
112. *Seeing at the Nanoscale, Northwestern University, April 17, 2013
111. *Ajou University, Molecular Science and Technology, Suwon, Korea, Nov. 3-7, 2012
110. *Optoelectronics Group, Cavendish Lab, University of Cambridge, Sept 27, 2012
109. *SPMonSPM Scanning Probes Meeting, Mons, Belgium, Sept 23-26, 2012
108. *Fall ACS Meeting, Philadelphia, PA, Aug. 19-23, 2012
107. *Microscopy & Microanalysis Society Meeting, July 30-Aug 2, 2012
106. *International Conference on Synthetic Metals, Atlanta, GA July 7-13, 2012
105. *Gordon Conference, Electronic Processes in Organic Materials, Italy, June 3-8, 2012
104. *Rochester Physical Chemistry Seminar, Rochester, NY Apr. 30, 2012
103. *MIT Physical Chemistry Seminar, Boston, MA Apr. 24, 2012
102. *Spring MRS Meeting, San Francisco, CA, Apr. 9-12, 2012
101. *Spring ACS Meeting, San Diego, CA, Mar. 25-28, 2012
100. *Fall MRS Meeting, Boston, MA, Nov-Dec, 2011
99. *Nanoscale Systems for Renewable Energy Workshop, National Renewable Energy Lab, Nov. 11, 2011
98. *ALS Users Meeting, Lawrence Berkeley National Lab, Oct. 4, 2011
97. *UC Berkeley, Physical Chemistry Seminar, Sept. 27, 2011
96. *Mirkunite 2011, Northwestern University, Aug. 26, 2011
95. *ICMR Thin Film Solar Workshop, UC Santa Barbara, Aug. 8-10, 2011
94. *ICMAT2011 Singapore, June 26-July 1, 2011
93. *Emerging Opportunities in Nanostructured Semiconductors, Northwestern, Evanston, IL, June 2-3, 2011
93. *DOE EFRC Summmit and Forum, May 25-27, 2011
92. *European-MRS Spring Meeting, Nice, France, May 13-19, 2011
91. *MRS Spring Meeting, San Francisco, CA, April 25-29, 2011
90. *ACS Spring Meeting, Anaheim, CA, March 27-32, 2011
89. *APS March Meeting, Dallas, TX, March 20-24, 2011
88. *Materials Research Society, Boston, MA, Nov. 29-Dec. 3, 2010
87. *UC Irvine Chemistry Seminar, Irvine, CA, Nov. 9, 2010
86. *IEEE Photonics Society, Denver, CO Nov. 7-11, 2010
85. *Scanning Probe Microscopy for Energy Applications, ***Keynote Speaker***, ORNL, Oak Ridge TN, Sept. 15-17,

2010
84. *U.S.-Korea Conference on Science and Technology, Energy and Environment, Seattle, WA, Aug. 11-15, 2010
83. *Gordon Research Conference, Discussion Leader, Mt Holyoke College, July 25-30, 2010
82. *MRS Organic Microelectronics and Optoelectronics Workshop, San Francisco, CA, July 6-8, 2010
81. *Northwestern University, Physical Chemistry Seminar, Chicago, IL, June 2, 2010
80. *Materials Research Society, San Francisco, CA, April 5-9, 2010
79. *American Chemical Society, San Francisco, CA, March 21-25, 2010
78. *Vanderbilt Institute for Nanoscience Colloquium, Nashville, TN, Feb. 24, 2010
77. *Technical University of Eindhoven, Netherlands, Jan. 18, 2010
76. *Materials Research Society, Boston, MA, Nov. 30-Dec. 6
75. *American Vacuum Society, San Jose, CA, Nov. 9-13
74. *Molecular Foundry, LBL, Nanoscience for Energy, Berkeley, CA, Oct. 16, 2009
73. *American Association of Physics Teachers WA Section, Plenary Speaker, Ellensburg, WA, Oct. 10, 2009
72. *Micro-Nano Breakthrough Conference, Portland, OR, Sept. 21-23, 2009
71. *Johns Hopkins University, Materials Science, Baltimore, MD, Sept. 16, 2009
70. *Rice University Chemistry, Houston, TX, Aug. 23-26, 2009
69. *ICMAT2009, Singapore June 28-July 3, 2009 (*two invited talks in separate sessions*)
68. *Molecular Plasmonics 2009, Jena, Germany, May 14-16, 2009
67. *Indiana University, Chemistry, Bloomington, IN, May 5, 2009
66. *University of Texas at Austin, Austin, TX, April 24, 2009
65. *U.C. Berkeley Nanoscience and Nanoengineering Institute, Berkeley, CA, April 3, 2009
64. *Cornell Center for Nanoscale Systems, Ithaca, NY, April 1, 2009
63. *ACS Spring Meeting, Salt Lake City, UT, March 2009
62. *University of Utah, Physics Colloquium, Feb. 5, 2009
61. *Materials Research Society Fall Meeting, Dec. 4, 2008
60. *Stanford University, Materials Science and Engineering Colloquium, Nov. 14, 2008
59. *DOE/NIST Workshop on Combinatorial Materials Science for Applications in Energy, Maryland, Nov. 5-7, 2008
58. *National Academy of Sciences, Kavli Frontiers of Science, Irvine, CA Oct. 2-4, 2008
57. *APCTP-ASEAN Workshop on Advanced Materials, Nha Trang Vietnam, Sept. 15-21, 2008
56. *ACS/RSC (Co-Organizer) Transatlantic Frontiers in Chemistry, Cheshire, U.K. July 31-Aug. 3 2008
55. *ACS Fall Meeting, Philadelphia, PA, August, 17 2008
54. *International Conference on Nanoscience & Technology, Keystone, CO July 21-25, 2008
53. *ACS Colloid and Surface Science Award Symposium, Raleigh, NC June 17, 2008
53. *University of Pittsburgh, May 15, 2008
52. *University of California Riverside, May 5, 2008
51. *University of Michigan, MSE Ann Arbor, MI Apr 10, 2008
50. *University of Montreal, Physics Montreal, Quebec, Apr 13, 2008
49. *Spring ACS Meeting New Orleans, LA Apr. 6-9, 2008
48. *University of Minnesota, Department of Chemistry Seminar, April 3, 2008
47. *Georgia Tech, School of Chemistry Seminar, Feb. 28, 2008
46. *Co-organizer, Nanostructured Photovoltaics Symposium, MRS Meeting, Nov. 2008
45. *Claremont Colleges, Claremont, CA, Nov. 13, 2007
44. *Reed College, Portland OR, Oct. 11, 2007
43. *Purdue University, Department of Biomedical Engineering Seminar, Oct. 31, 2007
42. *American Vacuum Society 54th International Symposium, Seattle, WA, Oct. 14-19 2007
41. *Optical Society of America Frontiers in Optics 2007, San Jose, CA Sept. 16-20 2007
40. *Nanyang Technological University, School of Materials Science and Engineering, Singapore, Sept. 6-9, 2007
40. *ACS Fall Meeting, Boston, August, 2007
39. *Materials Today Asia Conference, Beijing, China, Sept. 3-7, 2007
38. *Asylum Research Corporation, Santa Barbara, CA, June 18, 2007
37. *European Materials Research Society Meeting, Strasbourg, France, May 28-31, 2007

36. *NSF ECCS Grantees' Workshop to Broaden Participation, Reno, NV, April 30-May 2, 2007
35. *Fourth U.S.-Korea Forum on Nanotechnology: Sustainable Energy, Honolulu, Hawaii, April 26-27, 2007
34. *Foundations of Nanoscience FNANO'07, Snowbird, UT Apr. 18-21, 2007 (two invited talks in separate sessions)
33. *Foundations of Nanoscience FNANO'07, Snowbird, UT Apr. 18-21, 2007 (two invited talks in separate sessions)
32. *Materials Research Society Spring Meeting, San Francisco, CA April 9-13, 2007
31. *University of New Mexico, Physics and Astronomy Colloquium, March 30, 2007
30. *University of California, Santa Barbara, Materials Research Lab Seminar, March 8, 2007
29. *National Institute for Materials Science International Advanced Materials Forum, Tsukuba, Japan, Feb.19-21, 2007
28. Materials Research Society, Fall Meeting, Boston, Nov. 27-Dec. 1, 2006
28. Materials Research Society, Fall Meeting, Boston, Nov. 27-Dec. 1, 2006
27. *American Chemical Society, National Meeting, San Francisco, CA, Sept 10-14, 2006
26. *Society for Information Display Northwest Chapter, Seattle, WA, Aug. 16, 2006
25. *Gordon Conference on Electronic Processes in Organic Materials, Mt. Holyoke College, Jul. 30-Aug. 4, 2006
24. *American Chemical Society Northwest Regional Meeting, Reno NV, June 25-28, 2006
23. *Santa Clara University, Department of Chemistry Semianr, Santa Clara, CA Feb. 3 2006
22. *International Conference on Digital Fabrication, DigiFab 2005, Baltimore, MD, Sept. 18-21 2005,
21. Materials Research Society Spring Meeting, San Francisco, CA, Mar. 31, 2005
20. *American Chemical Society National Mtg., Philadelphia, PA, Aug. 22-26, 2004
19. *American Society of Mechanical Engineers, Nano Training Bootcamp, Evanston, IL, July 1, 2004
18. *American Chemical Society Northwest/Rocky Mtn. Reg. Mtg., Logan, UT, Jun. 7, 2004
17. *AFOSR Dip-Pen Nanolithography Workshop, Duck Key, FL, Jan. 26-27, 2004
16. *French-US Conference on Molecular Electronics, Paris, France, Dec. 18 2003
15. *University of Washington, Condensed Matter Physics Seminar, Nov. 18, 2003
14. *University of Washington, Nanotechnology Seminar, Oct. 7, 2003

Presentations prior to UW (*=invited)

13. *2003 SPIE Meeting, San Diego, CA, Aug. 3, 2003
12. *Nanoscience and Nanotechnology Conference, Groningen, The Netherlands, May 20, 2003
11. **"*Nanoscale Biological Sensing Using Nanoparticles"* ACS, New Orleans, LA, March 27, 2003
10. **"*Directed assembly of inorganic nanoparticles into functional materials"* ACS, New Orleans, LA, March 26, 2003
9. *Progress In Biotechnology Seminar Series, UC Davis, Oct. 4, 2002
8. *American Chemical Society, Boston, MA, August 2002
7. *International Conference on Electron, Ion and Photon, Beam Tech. & Nanofabrication, Anaheim, CA May 2002
6. *Materials Research Society, Spring Meeting, San Francisco, April 2002 (invited)
5. Materials Research Society Fall Meeting, Boston, MA, November 2000 (**MRS Graduate Student Gold Award**)
4. American Physical Society March Meeting, Minneapolis, MN, March 2000
3. Centennial American Physical Society meeting, Atlanta, GA, March 1999
2. International Conference on Science and Technology of Synthetic Metals '98, Montpellier, France, July 1998
1. American Physical Society Meeting, Washington D.C., April 1997