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Education:

University of California, Berkeley: Ph.D. in Physical Chemistry, 2004.

Thesis title: New materials for nanocrystal solar cells

Advisor: A. Paul Alivisatos

Princeton University: A.B., *summa cum laude*, in Chemistry, Certificate in Materials Science and Engineering, 1999.

Thesis title: Charge injection and chemistry at the indium tin oxide-organic interface

Advisors: Jeffrey Schwartz, Antoine Kahn

Positions Held:

2017 – : Professor, Department of Chemical Engineering, University of Texas at Austin
2018 – : T. Brockett Hudson Professorship, University of Texas at Austin
2017 – 2018: Henry Beckman Professorship, University of Texas at Austin
2013 – 2017: Associate Professor, Department of Chemical Engineering, University of Texas at Austin
2016 – 2018: Fellow of the Frank A. Liddell, Jr. Centennial Fellowship, University of Texas at Austin
2014 – 2017: Fellow of the Henry Beckman Professorship, University of Texas at Austin
2008 – 2014: Staff Scientist, Materials Sciences Division, LBNL, Berkeley, California
2005 – 2008: Research Staff Member, IBM Almaden Research Center, San Jose, California
2004 – 2005: Postdoctoral Researcher, IBM Watson Research Center, Yorktown Heights, New York

Administrative Appointments:

2021 – : Chair, Department of Chemical Engineering, University of Texas at Austin
2012 – 2013: Deputy Director, Molecular Foundry, LBNL
2008 – 2012: Director, Inorganic Nanostructures Facility, Molecular Foundry, LBNL

Journal Publications:

Contact author(s) are marked with *.

178) SA Shubert-Zuleta, B Tandon, BJ Roman, XY Gan, DJ Milliron*, “How to quantify electrons in plasmonic colloidal metal oxide nanocrystals,” *Chem. Mater.* **35** (2023), 3880-3891.
<https://pubs.acs.org/doi/10.1021/acs.chemmater.2c03694>

177) P Banerjee*, GR Burks, SB Bialik, M Nassr, E Bello, M Alleyne, BD Freeman, JE Barrick, CM Schroeder, DJ Milliron, “Nanostructure-derived anti-reflectivity in leafhopper brochosomes,” *Adv. Photon. Res.* (2023), doi:10.1002/adpr.202200343. <https://onlinelibrary.wiley.com/doi/10.1002/adpr.202200343>

176) ZM Sherman, K Kim, J Kang, BJ Roman, HSN Crory, DL Conrad, SA Valenzuela, E Lin, MN Dominguez, SL Gibbs, EV Anslyn*, DJ Milliron*, TM Truskett*, “Plasmonic response of complex nanoparticle assemblies,” *Nano Lett.* **23** (2023), 3030-3037.
<https://pubs.acs.org/doi/10.1021/acs.nanolett.3c00429>

175) B Tandon, SL Gibbs, C Dean, DJ Milliron*, “Highly responsive plasmon modulation in dopant-segregated nanocrystals,” *Nano Lett.* **23** (2023), 908-915.
<https://pubs.acs.org/doi/10.1021/acs.nanolett.2c04199>

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<https://pubs.acs.org/doi/10.1021/acs.jpcc.2c08495>

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- 172) JT Bender, AS Peterson, FC Østergaard, MA Wood, SMJ Heffernan, DJ Milliron, J Rossmeisl, J Resasco*, "Understanding cation effects on the hydrogen evolution reaction," *ACS Energy Lett.* **8** (2023), 657-665. <https://doi.org/10.1021/acsenenergylett.2c02500>
- 171) K Kim, J Yu, J Noh, LC Reimnitz, M Chang, DR Gamelin, BA Korgel, GS Hwang, DJ Milliron*, "Synthetic control of intrinsic defect formation in metal oxide nanocrystals using dissociated spectator metal salts," *J. Am. Chem. Soc.* **144** (2022), 22941-22949. <https://pubs.acs.org/doi/10.1021/jacs.2c08716>
- 170) CK Ofosu, J Kang, TM Truskett*, DJ Milliron*, "Effective hard-sphere repulsions between oleate-capped colloidal metal oxide nanocrystals," *J. Phys. Chem. Lett.* **13** (2022), 11323-11329. <https://doi.org/10.1021/acs.jpcclett.2c02627>
- 169) AM Green, S Kadulkar, ZM Sherman, TM Fitzsimons, CK Ofosu, J Yan, D Zhao, J Ilavsky, AM Rosales, BA Helms, V Ganesan, TM Truskett*, DJ Milliron*, "Depletion-driven assembly of polymer-coated nanocrystals," *J. Phys. Chem. C* **126** (2022), 19507-19518. <https://doi.org/10.1021/acs.jpcc.2c06279>
- 168) T Kwon, T Wilcoxson, DJ Milliron, TM Truskett*, "Dynamics of equilibrium linked colloidal networks," *J. Chem. Phys.* **157** (2022), 184902. <https://doi.org/10.1063/5.0125125>
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- 161) CM Staller, SL Gibbs, XY Gan, JT Bender, K Jarvis, GK Ong, DJ Milliron*, "Contact conductance governs metallicity in conducting metal oxide nanocrystal films," *Nano Lett.* **22** (2022), 5009-5014. <https://doi.org/10.1021/acs.nanolett.2c01852>
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- 158) J Kang, SA Valenzuela, EY Lin, MN Dominguez, ZM Sherman, TM Truskett*, EV Anslyn*, DJ Milliron*, "Colorimetric quantification of linking in thermoreversible nanocrystal gel assemblies," *Sci. Adv.* **18** (2022), eabm7364. <https://www.science.org/doi/10.1126/sciadv.abm7364>

- 157) B Tandon, SA Shubert-Zuleta, DJ Milliron*, "Investigating the Role of Surface Depletion in Governing Electron Transfer Events in Colloidal Plasmonic Nanocrystals," *Chem. Mater.* **34** (2022), 777-788. <https://pubs.acs.org/doi/10.1021/acs.chemmater.1c03635>
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- 155) KM Roccapiore*, SH Cho, AR Lupini, DJ Milliron, and SV Kalinin*, "Sculpting the plasmonic responses of nanoparticles by directed electron beam irradiation," *Small* **18** (2022), 2105099. <https://onlinelibrary.wiley.com/doi/abs/10.1002/sml.202105099>
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- 141) A Maho, CA Saez Cabezas, KA Meyertons, LC Reimnitz, S Sahu, BA Helms, DJ Milliron*, "Aqueous Processing and Spray Deposition of Polymer-Wrapped Tin-Doped Indium Oxide Nanocrystals as Electrochromic Thin Films," *Chem. Mater.* **32** (2020), 8401-8411.
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- 138) K Kim, LC Reimnitz, SH Cho, J Noh, Z Dong, SL Gibbs, BA Korgel, DJ Milliron*, "The Effect of Non-Incorporative Cations on Size and Shape of Indium Oxide Nanocrystals," *Chem. Mater.* **32** (2020), 9347-9354. <https://pubs.acs.org/doi/10.1021/acs.chemmater.0c03281>
- 137) S Kadulkar, DJ Milliron, TM Truskett*, V Ganesan*, "Transport Mechanisms Underlying Ionic Conductivity in Nanoparticle-Based Single-Ion Electrolytes," *J. Phys. Chem. Lett.* **11** (2020), 6970-6975.
<https://pubs.acs.org/doi/10.1021/acs.jpclett.0c01937>
- 136) S Heo, SH Cho, CJ Dahlman, A Agrawal, DJ Milliron*, "Influence of Crystalline and Shape Anisotropy on Electrochromic Modulation in Doped Semiconductor Nanocrystals," *ACS Energy Lett.* **5** (2020), 2662-2670. <https://pubs.acs.org/doi/10.1021/acsenerylett.0c01236>
- 135) H-C Lu, S Ghosh, N Katyal, VS Lakhanpal, G Henkelman, DJ Milliron*, "Synthesis and Dual-Mode Electrochromism of Anisotropic Monoclinic Nb₁₂O₂₉ Colloidal Nanoplatelets," *ACS Nano* **14** (2020), 10068-10082. <https://pubs.acs.org/doi/10.1021/acsnano.0c03283>
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- 22) MA Caldwell, S Raoux, RY Wang, HSP Wong*, DJ Milliron*, "Synthesis and size-dependent crystallization of colloidal germanium telluride nanoparticles," *J. Mater. Chem.* **20** (2010), 1285. *Invited*. <http://pubs.rsc.org/en/content/articlelanding/2010/jm/b917024c>
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- 17) Y Zhang, HSP Wong*, S Raoux, JN Cha, CT Rettner, LE Krupp, T Topuria, DJ Milliron, PM Rice, JL Jordan-Sweet, "Phase change nanodot arrays fabricated using a self-assembly diblock copolymer approach," *Appl. Phys. Lett.* **91** (2007), 013104.
- 16) DJ Milliron*, S Raoux, RM Shelby, J Jordan-Sweet, "Solution-phase deposition and nanopatterning of GeSbSe phase change materials," *Nature Mater.* **6** (2007), 352. <http://www.nature.com/nmat/journal/v6/n5/abs/nmat1887.html>
- 15) DJ Milliron*, DB Mitzi, M Copel, CE Murray, "Solution-processed metal chalcogenide films for p-type transistors," *Chem. Mater.* **18** (2006), 587.
- 14) P Peng, DJ Milliron, SM Hughes, JC Johnson, AP Alivisatos, RJ Saykally*, "Femtosecond spectroscopy of carrier relaxation dynamics in type II CdSe/CdTe tetrapod heteronanostructures," *Nano Lett.* **5** (2005), 587.
- 13) DJ Milliron, I Gur, AP Alivisatos*, "Hybrid organic-nanocrystal solar cells," *MRS Bull.* **30** (2005), 41.
- 12) DJ Milliron, SM Hughes, Y Cui, L Manna, J Li, LW Wang, AP Alivisatos*, "Colloidal nanocrystal heterostructures with linear and branched topology," *Nature* **430** (2004), 190.
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- 9) DJ Milliron, C Pitois, C Edler, AP Alivisatos*, JMJ Fréchet*, "Electroactive surfactant designed to mediate charge transfer between CdSe nanocrystals and organic semiconductors," *Adv. Mater.* **15** (2003), 58.
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- 6) DJ Milliron, IG Hill, A Kahn, J Schwartz*, "Surface oxidation activates indium tin oxide for hole injection," *J. Appl. Phys.* **87** (2000), 572.
- 5) IG Hill, D Milliron, J Schwartz, A Kahn*, "Organic semiconductor interfaces: Electronic structure and transport properties," *Appl. Surf. Sci.* **166** (2000), 354.
- 4) JP Chen, G Klaerner, JI Lee, D Markiewicz, VY Lee, RD Miller, JC Scott*, "Efficient, blue light-emitting diodes using crosslinked layers of polymeric arylamine and fluorene," *Synth. Met.* **107** (1999), 129.

- 3) JP Chen, D Markiewicz, VY Lee, G Klaerner, RD Miller, JC Scott*, "Improved efficiencies of light-emitting diodes through incorporation of charge transporting components in tri-block polymers," *Synth. Met.* (1999) **107**, 203.
- 2) G Klaerner, JI Lee, VY Lee, E Chan, JP Chen, A Nelson, D Markiewicz, R Siemens, JC Scott, RD Miller*, "Cross-linkable polymers based on dialkylfluorenes," *Chem. Mater.* **11** (1999), 1800.
- 1) ME Hawley*, GW Brown, DJ Markiewicz, F Spaepen, EP Barth, "Magnetic force microscopy observation of the magnetic structure of deformation induced shear bands in amorphous Fe₈₀B₁₆Si₄," *J. Magn. Mater.* **190** (1998), 89.

Editorial & Commentary:

- 4) DJ Milliron*, "Ultraviolet Photovoltaics: Share the Spectrum," *Nat. Energy* **2** (2017), 17116.
<https://www.nature.com/articles/nenergy2017116>
- 3) BA Helms*, TE Williams, R Buonsanti, DJ Milliron, "Colloidal Nanocrystal Frameworks," *Adv. Mater.* **27** (2015), 5820-5829. <http://dx.doi.org/10.1002/adma.201500127>
- 2) DJ Milliron*, "Quantum Dot Solar Cells: The Surface Plays a Core Role," *Nat. Mater.* **13** (2014), 772-773. <http://www.nature.com/nmat/journal/v13/n8/full/nmat4032.html>
- 1) B Dubertret, J Hollingsworth, H Liu, D Milliron, J Owen, E Weiss, WE Buhro, F Caruso, SM Kauzlarich, M Ward, "Preface to the *Chemistry of Materials* Special Issue: Synthetic and Mechanistic Advances in Nanocrystal Growth," *Chem. Mater.* **25** (2013), 1153-1154.
<http://pubs.acs.org/doi/abs/10.1021/cm4008359>

Book Chapters:

- 3) A Llordes, EL Runnerstrom, SD Lounis, DJ Milliron, "Plasmonic electrochromism of metal oxide nanocrystals," in *Electrochromic Materials and Devices*, RJ Mortimer, DR Rosseinsky and PMS Monk, Eds. Wiley, 2015.
- 2) JJ Urban, DJ Milliron, "Heterojunction solar cells based on colloidal quantum dots," in *Colloidal Quantum Dot Optoelectronics and Photovoltaics*, G Konstantatos and EH Sargent, Eds. Cambridge Univ. Press, 2013.
- 1) DJ Milliron, Q Huang, Y Zhu, "Novel Deposition Methods," in *Phase Change Materials: Science and Applications*, S Raoux and M Wuttig, Eds. Springer, 2009.

Issued Patents:

- 19) DJ Milliron, A Llordes, Y Wang, G LeBlanc, "Method for Producing Electrochromic Films by Low Temperature Chemical Condensation of Polyoxometalates," US10585322, 2020.
- 18) DJ Milliron, BH Kim, "Nanostructured Conducting Films with a Heterogeneous Dopant Distribution and Methods of Making and Use Thereof," US10515736, 2019.
- 17) DJ Milliron, A Llordes, R Buonsanti, G Garcia, "Electrochromic Nanocomposite Films," US9939662, 2018.
- 16) DJ Milliron, B Koo, G Garcia, CJ Dahlgren, TM Mattox, L De Trizio, "Conductive Transition Metal Oxide Nanostructured Electrochromic Material and Optical Switching Devices Constructed Thereof," US9785031, 2017.
- 15) BA Helms, DJ Milliron, EL Rosen, R Buonsanti, A Llordes, "Surface Chemical Modification of Nanocrystals," US9595363, 2017.
- 14) BE Cohen, JP Schuck, DJ Gargas, EM Chan, AD Ostrowski, JJ Urban, DJ Milliron, "Controlled synthesis of bright and compatible lanthanide-doped upconverting nanocrystals," US9556379, 2017.
- 13) DJ Milliron, G Garcia, A Llordes, R Tangirala, R Buonsanti, "Nanostructured transparent conducting oxide electrochromic device," US9341913, 2016.
- 12) R Tangirala, DJ Milliron, A Llordes, "Nanocomposite and method of making thereof," US9287119,

2016.

- 11) DJ Milliron, EL Runnerstrom, BA Helms, A Llordes, R Buonsanti, G Garcia "Nanocrystal polymer composite electrochromic device," US9207513, 2015.
- 10) DJ Milliron, R Buonsanti, "Colloidal infrared reflective and transparent conductive aluminum-doped zinc oxide nanocrystals," US8961828, 2015.
- 9) AP Alivisatos, JJ Dittmer, WU Huynh, D Milliron, "Semiconductor-nanocrystal/conjugated polymer thin films," US8753916, 2014.
- 8) AP Alivisatos, I Gur, D Milliron, "Nanocrystal solar cells processed from solution," US8440906, 2013.
- 7) I Gur, D Milliron, AP Alivisatos, H Liu, "Methods of making functionalized nanorods," US8093494, 2012.
- 6) J Hedrick, DJ Milliron, A Nelson, R Pratt, "Method for forming and aligning chemically mediated dispersion of magnetic nanoparticles in a polymer," US7854878, 2010.
- 5) AP Alivisatos, JJ Dittmer, WU Huynh, DJ Milliron, "Semiconductor-nanocrystal/conjugated polymer thin films," US7777303, 2010.
- 4) MA Caldwell, DJ Milliron, "Inorganic metal chalcogen cluster precursors and methods for forming colloidal metal chalcogenide nanoparticles using the same," US7670584, 2010.
- 3) MA Caldwell, DJ Milliron, "Inorganic metal chalcogen cluster precursors and methods for forming colloidal metal chalcogenide nanoparticles using the same," US7563430, 2009.
- 2) DJ Milliron, DB Mitzi, "Solution deposition of chalcogenide films containing transition metals," US7341917, 2008.
- 1) AP Alivisatos, D Milliron, L Manna, SM Hughes, "Nanocrystals with linear and branched topology," US7303628, 2007.

Pending Patent Applications:

- 4) DJ Milliron, GK Ong, "Composite Films and Methods of Making and Use Thereof," 2022.
- 3) DJ Milliron, GK Ong, C Saez Cabezas, HC Lu, "Porous Electrochromic Niobium Oxide Films and Methods of Making and Use Thereof", 2021.
- 2) DJ Milliron, Y Wang, "Electrochromic Devices and Methods of Making and Use Thereof," 2019.
- 1) DJ Milliron, J Kim, "Electrochromic Electrodes and Methods of Making and Use Thereof," 2019.

Honors and Awards:

- Senior Member, National Academy of Inventors (2023)
- Amol Ajinkya Memorial Lecture, University at Buffalo, Chemical & Biological Engineering (2022)
- Thiele Lecture, University of Notre Dame, Chemical & Biomolecular Engineering (2022)
- Full Member, Sigma Xi (2022)
- ACS Inorganic Nanoscience Award (2019)
- Edith and Peter O'Donnell Award in Engineering, TAMEST (2018)
- Norman Hackerman Award, Welch Foundation (2017)
- Sloan Research Fellowship (2016)
- Benjamin P. Boussert Lecture, Louisiana State University, Chemistry (2016)
- Defense Science Study Group member (2016-2017)
- Caltech Resnick Institute Resonate Award (2015)
- DOE Early Career Research Program Awardee (2010-2015)
- R&D 100 Award for Universal Smart Windows (2013)
- BASF/VW Science Award in Electrochemistry (finalist, 2012, 2013)
- Saint-Gobain NOVA External Venturing Innovation Competition (w/ Heliotrope, 1st place, 2012)
- NREL Innovation Growth Forum (w/ Heliotrope, finalist, 2012)
- Berkeley Lab Spot Award (2011)

- MDV (Mohr Davidow Ventures) Innovators Award (2010)
- LBNL Outstanding Performance Award (2010)
- DOE Outstanding Mentor Award (2010)
- Berkeley Lab Spot Award (2010)
- R&D 100 Award for Nanocrystal Solar Cells (2009)
- EPCOS Conference, Best Presentation Award (2009)
- MRS Spring Meeting, Best Poster Award (2007)
- Tech Transfer Award, LBNL (2004)
- National Defense Science and Engineering Graduate Fellowship (1999-2002)
- Barry M. Goldwater Scholarship (1997-1999)
- Robert C. Byrd Scholarship (1995-1999)
- National Science Scholars' Program award recipient (1995)
- Calvin Dodd MacCracken Senior Thesis Award (1999) – one of two awarded from 300 eligible
- Robert Thornton McCay Prize in Physical Chemistry (1999) – one of three (class of 40)
- Outstanding Achievement in Materials Science (1999) – only award in Materials Science
- William Foster Memorial Prize in Chemistry (1998) – only award (class of 40)

Synergistic Activities:

- Founder and Chief Scientific Officer, Celadyne Technologies (2018 -)
- Gordon Research Conference on Colloidal Semiconductor Nanocrystals (founding vice chair, 2014; chair, 2016)
- Founder and Chief Scientific Officer, Heliotrope Technologies (2012 - 2017)
- Scientific Advisory Board, PLANT PV (2011-2017)
- Technical Advisory Board, Pacific Light Tech (2011-2015)
- Technical Advisory Board, Spectrawatt (2010-2011)
- Scientific Advisory Board, Nanosys (2009-2010)
- MRS/APS committee on Energy Critical Elements (2009-2011)

Teaching Experience:

Advanced Thermodynamics	UT Austin CHE 387K
Materials Physics	UT Austin CHE 384T
Chemical Engineering Materials	UT Austin CHE 350
General Chemistry	Graduate Student Instructor, UCB Chemistry
Statistical Mechanics and Thermodynamics	Graduate Student Instructor, UCB Chemistry

Graduate and Postdoctoral Advisors and Advisees:

First name	Last name	Position	Co-advisor	Current Affiliation
Victor	Segui Barragan	student		UT Austin
Jay	Bender	student	J Resasco	UT Austin
Marina (Wren)	Berry	student		UT Austin
Diana	Conrad	student	EV Anslyn	UT Austin
Allison	Green	student	TM Truskett	UT Austin
Jiho	Kang	student	EV Anslyn	UT Austin
Charles (Kofi)	Ofori	student	TM Truskett	UT Austin
Sofia	Shubert-Zuleta	student		UT Austin
Akshat	Singh	student	J Resasco	UT Austin
Rebecca	Tafoya	student		UT Austin
Tanner	Wilcoxson	student	TM Truskett	UT Austin
Benjamin	Zydlowski	student		UT Austin
Wooje	Chang	postdoc		UT Austin
Daniel	Davies	postdoc		UT Austin
Benjamin	Roman	postdoc		UT Austin

Ankit	Agrawal	student		Quantumscape
Amy	Bergerud	student		Niron Magnetics
Marissa	Caldwell	student	H-SP Wong, Stanford	Medtronic
Shin Hum	Cho	student		Keimyung University
Clayton	Dahlman	student		Quantumscape
Manuel	Dominguez	student	EV Anslyn	3M
Guillermo	Garcia	student		Samsar
Stephen	Gibbs	student		Univ. of Washington
Sungyeon	Heo	student		SeoulTech University
Robert	Johns	student		HCL
Kihoon	Kim	student		Argonne Natl Lab
Vikram	Lakhanpal	student		
Sebastien	Lounis	student		Sila Nanotechnologies
Hsin-Che	Lu	student		Phillips 66
Gary	Ong	student		Celadyne Technologies
Lauren	Reimnitz	student		Novacentrix
Evan	Runnerstrom	student		Army Research Office
Camila	Saez Cabezas	student	TM Truskett, UT Austin	Dow
Corey	Staller	student		Celadyne Technologies
Proгна	Banerjee	postdoc		Argonne Natl Lab
Raffaella	Buonsanti	postdoc		EPFL
Emory	Chan	postdoc		LBL
Xing Yee	Gan	postdoc		Canon Nanotechnologies
Sandeep	Ghosh	postdoc		Applied Materials
Gang	Han	postdoc	BE Cohen, LBNL	Univ. of Massachusetts
Molly	Jhong	postdoc		Dow
Byung Hyo	Kim	postdoc		Soongsil University
Jongwook	Kim	postdoc		Ecole Polytechnique
Natacha	Krins	postdoc	TJ Richardson, J Cabana, LBNL	Sorbonne Univ.
Gabriel	LeBlanc	postdoc		Univ. of Tulsa
Beth	Lindquist	postdoc	TM Truskett, UT Austin	LANL
Anna	Llodes	postdoc		Fuelium, Spain
Rueben	Mendelsberg	postdoc	A Anders, LBNL	Freeform Future
Hoi Ri	Moon	postdoc	JJ Urban, LBNL	UNIST
Varada	Palakkal	postdoc		Sublime Systems
Jongsik	Park	postdoc		Kyonggi University
Oun Ho	Park	postdoc		Applied Materials
Jessy	Rivest	postdoc		Khosla Ventures
Evelyn	Davies	postdoc	BA Helms, LBNL	LBL
April	Sawvel	postdoc	BA Helms, LBNL	LLNL
Richa	Sharma	postdoc		Schlumberger Research
Amita	Singh	postdoc		Quantumscape
Ajay	Singh	postdoc		STMicroelectronics
Yizheng	Tan	postdoc		Applied Materials
Bharat	Tandon	postdoc		Univ. of Waterloo
Ravisubhash	Tangirala	postdoc		Sila Nanotechnologies
Robert	Wang	postdoc		Arizona State Univ.
Yang	Wang	postdoc		EMD
Omid	Zandi	postdoc		Tokyo Electron

Renjia	Zhou	postdoc	Analog Devices
A. Paul	Alivisatos	PhD advisor Postdoc	U Chicago Duke Univ.
David	Mitzi	advisor	

Professional Memberships:

- American Chemical Society
- Materials Research Society
- American Physical Society
- American Institute of Chemical Engineers
- Sigma Xi
- Phi Beta Kappa

Research Proposal Review Activities:

- NSF Division of Materials Research, Division of Chemistry
- DOE Basic Energy Sciences
- Proposal Study Panels for Center for Functional Nanomaterials, Brookhaven National Laboratory and Center for Integrated Nanotechnologies, Los Alamos and Sandia National Laboratories
- Cyclotron Road, Lawrence Berkeley National Laboratory

Journal Editorial Activities:

- *Nano Letters*, Associate Editor (2015 - 2020)
- *ACS Photonics*, Editorial Advisory Board (2016 -)
- *Chemistry of Materials*, Editorial Advisory Board (2015 -)
 - *Chemistry of Materials* Reviewer Award (2015)
- *ACS Combinatorial Science*, Editorial Advisory Board (2011 - 2015)
- *Scientific Reports*, Editorial Board (2013 - 2015)

Invited Presentations and Seminars:

04.2023	Materials Research Society National Meeting, San Francisco (2)
02.2023	Gordon Research Conference, Nanomaterials for Energy Applications
02.2023	Designing Soft Matter In & Out of Equilibrium, Lorentz Center Workshop, Leiden
01.2023	Texas A&M University, Materials Science & Engineering
11.2022	University of Illinois Urbana-Champaign, Chemical & Biomolecular Engineering
10.2022	University at Buffalo, Chemical & Biological Engineering, Amol Ajinkya Memorial Lecture
09.2022	University of Florida, Department of Chemical Engineering
08.2022	University of Notre Dame, Chemical & Biomolecular Engineering, Thiele Lecture
08.2022	Army Research Office
08.2022	Tokyo Electron
08.2022	Texas Soft Matter, Austin
07.2022	Gordon Research Conference, Colloidal Semiconductor Nanocrystals
07.2022	Gordon Research Seminar, Colloidal Semiconductor Nanocrystals
06.2022	Princeton University, Chemistry
05.2022	University of California, Santa Barbara, Chemical Engineering
04.2022	University of Southern California, Chemistry
03.2022	American Chemical Society, Inorganic Division Periodic Table Talks
02.2022	Duke University, Mechanical Engineering & Materials Science
01.2022	Auburn University, Chemistry
01.2022	Penn State University, Chemical Engineering
12.2021	Materials Research Society National Meeting, Boston
11.2021	University of Minnesota, Chemistry
10.2021	Columbia University, Chemistry

10.2021 nanoGe Conference, Nanocrystal Fundamentals
 10.2021 University of Delaware, Chemical Engineering
 09.2021 New York University, Chemical Engineering
 09.2021 Rensselaer Polytechnic Institute, Chemical Engineering
 09.2021 Virginia Commonwealth University, Chemical Engineering
 06.2021 American Chemical Society Colloids and Surface Science
 05.2021 Naval Research Laboratory
 03.2021 Applied Nanotechnology and Nanoscience International Conference
 03.2021 nanoGe Conference, Chemistry of Nanomaterials
 03.2021 News in Nanocrystals, virtual symposium
 11.2020 University of Hamburg, Department of Chemistry
 10.2020 nanoGe Conference, Infrared Nanocrystals
 10.2020 Stanford University, Chemical Engineering
 09.2020 Texas State University
 06.2020 University of Toronto
 10.2019 University of California, San Diego, Nanoengineering
 08.2019 American Chemical Society, San Diego (award lecture)
 06.2019 American Chemical Society Colloids and Surface Science, Atlanta
 04.2019 American Chemical Society, Orlando
 03.2019 Cotton Medal Symposium, Texas A&M, Chemistry
 12.2018 Machine Learning and Reverse Engineering of Soft Matter, Leiden
 07.2018 Gordon Research Conference, Plasmonics and Nanophotonics, Maine
 05.2018 University of Chicago, Chemistry
 04.2018 Harvard University and MIT, Inorganic Chemistry
 03.2018 American Chemical Society, New Orleans (2 talks)
 12.2017 Materials Research Society National Meeting, Boston (2 talks)
 11.2017 American Institute of Chemical Engineers National Meeting, Minneapolis
 10.2017 University of Illinois, Urbana-Champaign, Department of Chemistry
 08.2017 Applied Materials, Santa Clara
 06.2017 Gordon Research Conference, Plasmonically Powered Processes, Hong Kong
 04.2017 American Chemical Society National Meeting, San Francisco (2)
 12.2016 PacSurf, Hawaii
 12.2016 Materials Research Society National Meeting, Boston
 11.2016 University of Washington, Chemical Engineering
 11.2016 American Institute of Chemical Engineers National Meeting, San Francisco
 11.2016 Caltech, Chemical Engineering
 11.2016 Caltech, Materials
 11.2016 Bowling Green State University, Center for Photochemical Science
 09.2016 Louisiana State University, Department of Chemistry, Benjamin P. Boussett Lecture
 06.2016 Fudan University, Department of Chemistry, Shanghai, China
 06.2016 Nature Conference on Materials for Energy, Wuhan, China
 04.2016 Notre Dame University, Department of Chemistry
 04.2016 Pennsylvania State University, Department of Chemistry
 04.2016 MIT, Center for Excitonics
 03.2016 Rice University, Materials Science & Nanoengineering Department
 01.2016 Ecole Polytechnique, Paris, France
 01.2016 Universite de Liege, Liege, Belgium
 12.2015 PacifiChem, Honolulu
 12.2015 Materials Research Society National Meeting, Boston (two presentations)
 11.2015 Composites at Lake Louise, Lake Louise, Canada
 10.2015 stARTup Studio, Austin
 09.2015 CICbiomaGUNE seminar, Donostia-San Sebastian, Spain
 09.2015 CICEnergiGUNE seminar, Vitoria-Gasteiz, Spain

09.2015 FQDots Conference, nanoGe, Santiago de Compostella, Spain
 08.2015 American Chemical Society National Meeting, Boston, Massachusetts
 07.2015 Aspen Ideas Festival, Aspen
 05.2015 Electrochemical Society National Meeting, Chicago
 05.2015 Washington University, St. Louis, Institute for Materials Science & Engineering
 04.2015 Washington University, St. Louis, Department of Chemistry
 03.2015 American Chemical Society National Meeting, Denver (two presentations)
 03.2015 BASF 150th Anniversary Science Symposium, Ludwigshafen, Germany
 03.2015 American Physical Society National Meeting, San Antonio
 02.2015 Gordon Research Conference, Nanomaterials for Energy Technologies, Ventura
 02.2015 CORE-CM seminar, Michigan State University
 02.2015 Center for Nano- and Molecular Science, University of Texas at Austin
 01.2015 Materials Science & Engineering Department, North Carolina State University
 10.2014 KAUST, Applied Functional Materials Workshop, Saudi Arabia
 10.2014 Wayne State University, Nano@Wayne seminar, Detroit, Michigan
 09.2014 Center for NanoScience, Workshop: Walk and Talk at the Nanoscale, Venice, Italy
 08.2014 American Chemical Society National Meeting, San Francisco, California
 07.2014 Gordon Research Conference, Nanostructure Fabrication, University of New England
 07.2014 Gordon Research Conference, Plasmonics, Sunday River Resort
 06.2014 The Molecular Foundry, Lawrence Berkeley National Lab, Berkeley
 05.2014 European Materials Research Society Spring Meeting, Lille, France (two presentations)
 05.2014 Nanoscience with Nanocrystals (NaNaX), Bad Hofgastein, Austria
 04.2014 Materials Research Society National Meeting, San Francisco, California
 03.2014 American Chemical Society National Meeting, Dallas, Texas
 02.2014 ARPA-E Energy Innovation Summit, Washington, DC
 02.2014 Studio One: The Nature of Programming Matter, University of California, Berkeley
 (plenary)
 01.2014 Middle Eastern Technical University, Ankara, Turkey
 10.2013 Norwegian University of Science and Technology, Trondheim, Norway
 09.2013 Department of Chemistry, Texas A&M University, College Station, Texas
 09.2013 American Chemical Society National Meeting, Indianapolis
 08.2013 Transatlantic Frontiers of Chemistry, Seeon, Germany
 07.2013 ICMAT, Singapore
 05.2013 BASF, Ludwigshafen, Germany
 04.2013 Ludwig Maximilian University, Department of Chemistry, Munich, Germany
 04.2013 Max Planck Institute for Chemical Energy Conversion, Muelheim, Germany
 04.2013 Max Planck Institute for Solid State Research, Stuttgart, Germany
 04.2013 Massachusetts Institute of Technology, Materials Science and Engineering Department
 04.2013 University of Texas at Austin, Chemical Engineering Department
 04.2013 Materials Research Society Spring Meeting, San Francisco
 03.2013 University of California, Berkeley, Nanoscale Science and Engineering seminar
 02.2013 University of California, Berkeley, Chemical Engineering Department
 02.2013 Cornell University, Materials Science and Engineering Department, Ithaca
 02.2013 University of Washington, Materials Science and Engineering Department, Seattle
 11.2012 ALS/CXRO Seminar Series, Berkeley
 11.2012 Seoul National University, Department of Chemical and Biological Engineering, Seoul
 11.2012 KAIST, EEWS Department, Daejeon
 11.2012 Yonsei University, Department of Chemistry, Seoul
 11.2012 Stanford University, Optics and Electronics seminar, Palo Alto, California
 10.2012 Advanced Light Source Workshop on mesoscale science beamline, Berkeley
 10.2012 Molecular Foundry Workshop on Nanoscale Battery Materials, Berkeley
 10.2012 Bay Area Photovoltaics Consortium Annual Meeting, Berkeley (plenary)
 09.2012 University of California, Berkeley, Department of Chemistry

08.2012 Dow Chemical, Midland, MI
 08.2012 Tenth International Meeting on Electrochromism, Holland, MI (plenary)
 06.2012 Gordon Research Conference, Inorganic Chemistry, University of New England
 06.2012 Istituto Italiano di Tecnologia, Genoa, Italy
 06.2012 CIMTEC, Montecatini Terme, Italy
 04.2012 Princeton University, Department of Chemistry
 04.2012 University of California, Los Angeles, CNSI
 02.2012 University of California, Santa Barbara, Materials Department
 01.2012 SPIE Photonics West, BiOS, San Francisco, California
 11.2011 Marin Science Seminar, San Rafael, California
 10.2011 ARPA-E, US Department of Energy, Washington, DC
 09.2011 European Materials Research Society Meeting, Warsaw
 08.2011 American Chemical Society National Meeting, Denver
 07.2011 Gordon Research Conference, Clusters, Nanocrystals, & Nanostructures, Mount Holyoke
 07.2011 Argonne National Laboratory, Center for Nanoscale Materials
 05.2011 LBNL Carbon Cycle 2.0 Seminar, Berkeley
 05.2011 University of California, San Diego, Nanoengineering Department
 04.2011 University of California, Berkeley, EECS Solid State Seminar
 04.2011 California Institute of Technology, Forum on Nanotechnology for Sustainability
 02.2011 University of California, Santa Barbara, MROP
 09.2010 Istituto Italiano di Tecnologia, Genoa, Italy
 08.2010 LBNL Summer Lecture Series, Berkeley
 06.2010 Crystal Growth West, South Lake Tahoe, California
 05.2010 DNV Materials Forum, Columbus, Ohio
 01.2010 University of California, Santa Barbara, Materials Department
 09.2009 European Phase Change and Ovonic Science conference, Aachen, Germany, Selected as "Best Presentation."
 06.2009 NSRC contractors meeting, Annapolis, Maryland
 04.2009 MRS Spring Meeting, San Francisco
 01.2009 Oregon State University, Eugene
 10.2008 University of California, Berkeley, Nanoscience seminar series
 09.2008 LBNL, The Molecular Foundry
 09.2008 European Phase Change and Ovonic Science Conference, Prague
 04.2008 SUNY, Stonybrook, Department of Physics and Astronomy
 04.2008 MRS Spring Meeting, San Francisco
 10.2007 CCNY, New York, Department of Chemistry
 11.2006 Palo Alto Research Center (PARC)
 03.2003 International Symposium on Compound Semiconductors (ISCS), San Diego
 03.2003 Nanoscale Science Research Centers Workshop, Washington, DC