Smaranda C. Marinescu

Department of Chemistry
University of Southern California
840 Downey Way, 365 LJS
Los Angeles, CA 90089

Phone: (213) 740–6075
E-mail: ***smarines@usc.edu***
http://marinescu.usc.edu
http://chem.usc.edu/faculty/Marinescu.html

Appointments

03/2020–present	Associate Professor, Department of Chemistry, University of Southern California (USC)
08/2013–03/2020	Gabilan Assistant Professor, Department of Chemistry, USC

Education and Training

2011–2013	NSF Center for Chemical Innovation (CCI) Postdoctoral Fellow; California Institute of Technology (Caltech)
2007–2011	Ph.D. Inorganic Chemistry; Massachusetts Institute of Technology (MIT)
2003–2006	B.S. Chemistry and Biology; Caltech

Research experience

2011–2013	*NSF CCI Postdoctoral Fellow, Caltech – Advisor:* ***Prof. Harry B. Gray***
2007–2011	*Graduate Research Assistant, MIT – Advisor:* ***Prof. Richard R. Schrock***
2006–2007	*Research Assistant, Caltech – Advisor:* ***Prof. Brian M. Stoltz***
2006	*Summer Intern, Medicinal Chemistry, Pfizer, La Jolla, Ca*
2003–2006	*Undergraduate Research Assistant, Caltech – Advisor:* ***Prof. John E. Bercaw***
2002–2003	*Undergraduate Research Assistant, University of Bucharest, Romania – Advisor:* ***Prof. Marius Andruh***

Honors, Fellowships, and Awards

- Alexander von Humboldt Research Fellowship 2022
- American Chemical Society (ACS) Harry Gray Award for Creative Work in Inorganic Chemistry by a Young Investigator 2021
- Alfred P. Sloan Research Fellowship in Chemistry 2019
- Rising Stars Award, 43th International Conference on Coordination Chemistry, Japan 2018
- RSC *Chemical Communications* Emerging Investigator 2017
- National Science Foundation (NSF) CAREER Award 2016
- Zumberge Individual Award, USC 2014
- Gabilan Assistant Professorship, USC 2013
- NSF Center for Chemical Innovation Postdoctoral Fellowship 2011–2013
- Morse Travel Grant, MIT 2009
- Bruker/MIT poster prize, Bruker/MIT Symposium 2009
- Summer Undergraduate Research Fellowship, Caltech 2004–2005
- Merit scholarship for academic achievement, University of Bucharest 2002–2003
- Several prizes, Romanian National Chemistry Olympiad 1997–2001

Synergistic Activities

2017–2021	Executive Committee member for the Nanoporous Materials Genome Center phase II
2018-present	Co-organizer of the following symposium: • Through the Lens of Inorganic Chemistry: Understanding Heterogeneous Processes in Energy Conversion and Storage – 257th ACS National Meeting, Orlando, FL, March 2019; Co-organizers: Prof. Jenny Yang, Prof. V. Sara Thoi
2016–present	Discussion leader for the following conferences: • Inorganic Chemistry GRC, Biddeford, ME, June 2018

updated June 29, 2022

- 3rd International Conference on Proton Coupled Electron Transfer (PCET 2018); Blowing Rock, NC, June 2018
- MOF-2016, Long Beach, CA, September 2016
- Organometallic Chemistry GRC, Newport, RI, July 2016

Publications (* corresponding author; advised postdoctoral scholar[§], graduate[‡] or undergraduate[UG] student)

Independent peer reviewed journal articles from USC – Manuscripts in press or published

[46] Hellman, A. N.[‡]; Intrator, J. A.[‡]; Choate, J.[‡]; Velazquez, D. A.[‡]; Marinescu, S. C.* "Primary- and Secondary-Sphere Effects of Amine Substituent Position on Rhenium Bipyridine Electrocatalysts for CO_2 Reduction", *Polyhedron* **2022***, 223,* 115933.

[45] Intrator, J. A.[‡]; Orchanian, N. M.[‡]; Clough, A. J.[‡]; Haiges, R.; Marinescu, S. C.* "Electronically-Coupled Redox Centers in Trimetallic Cobalt Complexes", *Dalton Trans.* **2022***, 51,* 5660–5672.

[44] Johnson, E. M.[‡]; Liu, J. J.[§]; Samuel, A. D.; Haiges, R.; Marinescu, S. C.* "Switching Catalyst Selectivity via the Introduction of a Pendant Nitrophenyl Group", *Inorg. Chem.* **2022***, 61,* 1316–1326.

[43] Liu, J. J.[§]; Chapovetsky, A.[‡]; Haiges, R.; Marinescu, S. C.* "Effects of Protonation State on Electrocatalytic CO_2 Reduction by a Cobalt Aminopyridine Macrocyclic Complex", *Inorg. Chem.* **2021***, 60,* 17517–17528.

[42] Chen, K.[‡]; Downes, C. A.[‡]; Goodpaster, J. D.; Marinescu, S. C.* "Hydrogen Evolving Activity of Dithiolene-Based Metal-Organic Frameworks with Mixed Cobalt and Iron Centers", *Inorg. Chem.* **2021***, 60,* 11923–11931.

[41] Chen, K.[‡]; Ray, D.; Ziebel, M. E.; Gaggioli, C. A.; Gagliardi, L.; Marinescu, S. C.* "Cu[Ni(2,3-pyrazinedithiolate)$_2$] Metal-Organic Framework for Electrocatalytic Hydrogen Evolution", *ACS Appl. Mater. Interfaces* **2021**, *13,* 34419–34427.

[40] Orchanian, N. M.[‡]; Hong, L. E.[UG†]; Velazquez, D. A.[‡†]; Marinescu, S. C.* "Electrocatalytic Syngas Generation with a Non-Innocent Cobalt 2-Phosphinobenzenethiolate Complex", *Dalton Trans.* **2021**, *50,* 10779–10788.
[†] equal contribution

[39] Hellman, A. N.[‡]; Haiges, R.; Marinescu, S. C.* "Influence of Intermolecular Hydrogen Bonding Interactions of the Electrocatalytic Reduction of CO_2 to CO by 6,6'-amine Substituted Rhenium Bipyridine Complexes", *ChemElectroChem* **2021**, *8,* 1864–1872.

[38] Chen, K.[‡]; Downes, C. A.[‡]; Schneider, E.; Goodpaster, J. D.*; Marinescu, S. C.* "Improving and Understanding the Hydrogen Evolving Activity of a Cobalt Dithiolene Metal-Organic Framework", *ACS Appl. Mater. Interfaces* **2021**, *13,* 16384–16395.
Marinescu: conceived and led the project
Goodpaster: performed density functional theory calculations

[37] Chapovetsky, A.[‡]; Liu, J. J.[§]; Welborn, M.; Luna, J. M.[UG]; Do, T.; Haiges, R.; Miller III, T. F.*; Marinescu, S. C.* "Electronically Modified Cobalt Aminopyridine Complexes Reveal an Orthogonal Axis for Catalytic Optimization for CO_2 Reduction", *Inorg. Chem.* **2020**, *59,* 13709–13718.
Marinescu: conceived and led the project
Miller: performed density functional theory calculations

[36] Clough, A. J.[‡]; Orchanian, N. M.[‡]; Skelton, J. M.; Neer, A. J.; Howard, S. A.; Downes, C. A.[‡]; Piper, L. F. J.; Walsh, A.; Melot, B. C.*; Marinescu, S. C.* "Room Temperature Metallic Conductivity in a Metal–Organic Framework Induced by Oxidation", *J. Am. Chem. Soc.* **2019**, *141,* 16323–16330.
Marinescu: conceived and led the project
Melot: analyzed the resistivity data and performed magnetization measurements

[35] Orchanian, N. M.[‡]; Hong, L. E.[UG]; Marinescu, S. C.* "Immobilized Molecular Wires on Carbon-Cloth Electrodes Facilitate CO_2 Electrolysis", *ACS Catal.* **2019**, *9,* 9393–9397.

[34] Hellman, A. N.[‡]; Haiges, R.; Marinescu, S. C.* "Rhenium Bipyridine Catalysts with Hydrogen Bonding Pendant Amines for CO_2 Reduction", *Dalton Trans.,* **2019***, 48,* 14251–14255.

[33] Liu, J. J.[‡]; Marinescu, S. C.* "Harnessing the Oxidative Power of Monooxygenases through Electrochemistry", *ACS Cent. Sci.* **2019**, *5,* 577–579. (First Reactions).

[32] Orchanian, N. M.[‡]; Hong, L. E.[UG]; Skrainka, J. A.[UG]; Esterhuizen, J. A.[UG]; Popov, D. A.[‡]; Marinescu, S. C.* "Surface-Immobilized Conjugated Polymers Incorporating Rhenium Bipyridine Motifs for Electrocatalytic and Photocatalytic CO_2 Reduction", *ACS Appl*. *Energy Mater.* **2019**, *2,* 110–123.

- **New Chemistry to Advance the Quest for Sustainable Solar Fuels Special Issue**

[31] Popov, D. A.[‡]; Luna, J. M.[UG]; Orchanian, N. M.[‡]; Haiges, R.; Downes, C. A.[‡]; Marinescu, S. C.* "A 2,2'-Bipyridine-Containing Covalent Organic Framework Bearing Rhenium (I) Tricarbonyl Moieties for CO_2 Reduction", *Dalton Trans.* **2018**, *47,* 17450–17460.

[30] Johnson, E. M.[‡]; Haiges, R.; Marinescu, S. C.* "Covalent Organic Frameworks Composed of Rhenium Bipyridine and Metal Porphyrins: Designing Heterobimetallic Frameworks with Two Distinct Metal Sites", *ACS Appl*. *Mater. Interfaces* **2018**, *10,* 37919–37927.

[29] Chapovetsky, A.[‡†]; Welborn, M.[†]; Luna, J. M.[UG]; Haiges, R.; Miller III, T. F.*; Marinescu, S. C.* "Pendant Hydrogen-Bond Donors in Cobalt Catalysts Independently Enhance CO_2 Reduction", *ACS Cent. Sci.* **2018**, *4,* 397–404.
[†] equal contribution
Marinescu: conceived and led the project
Miller: performed density functional theory calculations

- Highlighted by Chabolla, S. and Yang, J. "For CO_2 Reduction. Hydrogen-Bond Donors Do the Trick", *ACS Cent. Sci.* **2018**, *4,* 315–317.
- Categorized as a "***Highly Cited Paper***" by Web of Science™, receiving enough citations to place it in the top 1% of its academic field based on a highly cited threshold for the field and publication year.

[28] Downes, C. A.[‡]; Clough, A. J.[‡]; Chen, K.[‡]; Yoo, J. W.[UG]; Marinescu, S. C.* "Evaluation of the H_2 Evolving Activity of Benezenehexathiolate Coordination Frameworks and the Effect of Film Thickness on H_2 Production", *ACS Appl*. *Mater. Interfaces* **2018**, *10*, 1719–1727.

[27] Downes, C. A.[‡]; Marinescu, S. C.* "Understanding Variability in the Hydrogen Evolution Activity of a Cobalt Anthracenetetrathiolate Coordination Polymer", *ACS Catal*. **2017**, *7*, 8605–8612.

[26] Downes, C. A.[‡]; Marinescu, S. C.* "Electrocatalytic Metal-Organic Frameworks for Energy Applications", *ChemSusChem* **2017***, 10*, 4374–4392.

- Categorized as one of the journal's top downloaded recent papers.

[25] Clough, A. J.[‡]; Skelton, J. M.; Downes, C. A.[‡]; De la Rosa, A. A.[UG]; Yoo, J. W.[UG]; Walsh, A.; Melot, B. C.*; Marinescu, S. C.* "Metallic Conductivity in a Two-Dimensional Cobalt Dithiolene Metal–Organic Framework" *J. Am. Chem. Soc.* **2017**, *139*, 10863–10867.
Marinescu: conceived and led the project
Melot: analyzed the resistivity data and performed magnetization measurements

- **Highlighted by USC News**

[24] Downes, C. A.[‡]; Yoo, J. W.[UG]; Orchanian, N. M.[‡]; Haiges, R.; Marinescu, S. C.* "H_2 evolution by a Cobalt Selenolate Electrocatalyst and Related Mechanistic Studies" *Chem. Commun.* **2017**, *53*, 7306–7309.

- **Emerging Investigators Special Issue**

[23] Downes, C. A.[‡]; Marinescu, S. C.* "Bioinspired Metal Selenolate Polymers with Tunable Mechanistic Pathways for Efficient H_2 Evolution" *ACS Catal*. **2017**, *7*, 848–854.

[22] Chapovetsky, A.[‡]; Haiges, R.; Marinescu, S. C.* "Synthesis and Characterization of a Tetranickel Complex Supported by a Dithiolate Framework with Pendant Ether Moieties" *Polyhedron* **2017**, 123, 9–13.

[21] Downes, C. A.[‡]; Marinescu, S. C.* "One Dimensional Metal Dithiolene (M = Ni, Fe, Zn) Coordination Polymers for Hydrogen Evolution Reaction" *Dalton Trans.* **2016**, *45*, 19311–19321.

[20] Chapovetsky, A.[‡]; Do, T. H.[UG]; Haiges, R.; Takase, M. K.; Marinescu, S. C.* "Proton Assisted Reduction of CO_2 by Cobalt Aminopyridine Macrocycles" *J. Am. Chem. Soc.* **2016**, *138*, 5765–5768.

- Highlighted in an ***ACS Select Virtual Issue***, "Women in Inorganic Chemistry: Synthetic Chemistry Addressing Challenges in Energy and the Environment", *Inorg. Chem.* **2018**, *57*, 3656–3658.
- Highlighted in an ***ACS Select Virtual Issue***, "The Way Forward in Molecular Electrocatalysis", by Dey, A.; *Inorg. Chem.* **2016**, 55, 10831–10834

[19] Downes, C. A.[‡]; Marinescu, S. C.* "Efficient Electrochemical and Photoelectrochemical H_2 Production from Water by a Cobalt Dithiolene One Dimensional Metal–Organic Surface" *J. Am. Chem. Soc.* **2015**, *137*, 13740–13743.

[18] Clough, A. J.[‡]; Yoo, J. W.[UG]; Mecklenburg, M. H.; Marinescu, S. C.* "Two-Dimensional Metal–Organic Surfaces for Efficient Hydrogen Evolution from Water" *J. Am. Chem. Soc.* **2015**, *137*, 118–121.

- Categorized as a "***Highly Cited Paper***" by Web of Science™, receiving enough citations to place it in the top 1% of its academic field based on a highly cited threshold for the field and publication year.

Pre-independent peer reviewed journal articles

[17] McKone, J. R.; Marinescu, S. C.; Brunschwig, B. S.; Winkler, J. R.; Gray, H. B.* "Earth-abundant hydrogen evolution electrocatalysts" *Chem. Sci.* **2014**, *5*, 865–878.

- Categorized as a "***Highly Cited Paper***" by Web of Science™, receiving enough citations to place it in the top 1% of its academic field based on a highly cited threshold for the field and publication year.

[16] Keith, J. A.; Behenna, D. C.; Sherden, N.; Mohr, J. T.; Ma, S.; Marinescu, S. C.; Nielsen, R. J.; Oxgaard, J.; Stoltz, B. M.*; Goddard, W. A., III* "The Reaction Mechanism of the Enantioselective Tsuji Allylation: Inner-Sphere and Outer-Sphere Pathways, Internal Rearrangements, and Asymmetric C–C Bond Formation" *J. Am. Chem. Soc.* **2012**, *134*, 19050–19060.

[15] Marinescu, S. C.; Bracher, P. J.; Winkler, J. R.; Gray, H. B.* "Solar Fuels" *AIP Conf. Proc.* **2013**, *1519*, 64–67.

[14] Marinescu, S. C.; Winkler, J. R.; Gray, H. B.* "Molecular Mechanisms of Cobalt Catalyzed Hydrogen Evolution" *Proc. Natl. Acad. Sci. USA* **2012**, *109*, 15127–15131.

- Featured in *Science* (Yeston, J. S. "Protons coming and going" *Science* **2012**, *338*, 17), C&E News (Jacoby, M. "Pinning down a Cobalt-Catalyzed Hydrogen Evolution" *C&E News* **2012**, *90*, 37, 8) and a Caltech press release entitled "Showing the Way to Improved Water-Splitting Catalysts".

[13] Marinescu, S. C.; Ng, V. W. L.; Lichtscheidl, A. G.; Schrock, R. R.*; Müller, P.; Takase, M. K. "Syntheses of Variations of Stereogenic-at-Metal Imido Alkylidene Complexes of Molybdenum" *Organometallics* **2012**, *31*, 6336–6343.

[12] Behenna, D. C.; Mohr, J. T.; Sherden, N. H.; Marinescu, S. C.; Harned, A. M.; Tani, K.; Seto, M.; Ma, S.; Novák, Z.; Krout, M. R.; McFadden, R. M.; Roizen, J. L.; Enquist, J. A., Jr.; White, D. E.; Levine, S. R.; Petrova, K. V.; Iwashita, A.; Virgil, S. C.; Stoltz, B. M.* "Enantioselective Decarboxylative Alkylation Reactions: Catalyst Development, Substrate Scope, and Mechanistic Studies" *Chem. Eur. J.* **2011**, *17*, 14199–14223.

[11] Marinescu, S. C.; Levine, D. S.; Zhao, Y.; Schrock, R. R.*; Hoveyda, A. H. "Isolation of Pure Disubstituted *E* Olefins through Mo-Catalyzed *Z*-Selective Ethenolysis of Stereoisomeric Mixtures" *J. Am. Chem. Soc.* **2011**, *133*, 11512–11514.

[10] Marinescu, S. C.; Schrock, R. R.*; Müller, P.; Takase, M. K.; Hoveyda, A. H. "Room-Temperature *Z*-Selective Homocoupling of α-Olefins by Tungsten Catalysts" *Organometallics* **2011**, *30*, 1780–1782.

[9] Marinescu, S. C.; King, A. J.; Schrock, R. R.*; Singh, R.; Müller, P.; Takase, M. K. "Simple Molybdenum(IV) Olefin Complexes of the Type Mo(NR)(X)(Y)(olefin)" *Organometallics* **2010**, *29*, 6816–6828.

[8] Schrock, R. R.*; Jiang, A. J.; Marinescu, S. C.; Simpson, J. H.; Müller, P. "Fundamental Studies of Molybdenum and Tungsten Methylidene and Metallacyclobutane Complexes" *Organometallics* **2010**, *29*, 5241–5251.

[7] Marinescu, S. C.; Schrock, R. R.*; Müller, P.; Hoveyda, A. H. "Ethenolysis Reactions Catalyzed by Imido Alkylidene Monopyrrolide (MAP) Complexes of Molybdenum" *J. Am. Chem. Soc.* **2009**, *131*, 10840–10841.

[6] Rendon, N.; Berthoud, R.; Blanc, F.; Gajan, D.; Maishal, T.; Basset, J.-M.; Copéret, C.*; Lesage, A.; Emsley, L.; Marinescu, S. C.; Singh, R.; Schrock, R. R.* "Well-Defined Silica-Supported Mo-Alkylidene Catalyst Precursors containing one OR Substituent: Methods of Preparation and Structure-Reactivity Relationship in Alkene Metathesis" *Chem. Eur. J.* **2009**, *15*, 5083–5089.

[5] Marinescu, S. C.; Schrock, R. R.*; Li, B.; Hoveyda, A. H. "Inversion of Configuration at the Metal in Diastereomeric Imido Alkylidene Monoaryloxide Monopyrrolide Complexes of Molybdenum" *J. Am. Chem. Soc.* **2009**, *131*, 58–59.

[4] Marinescu, S. C.; Singh, R.; Hock, A. S.; Wampler, K. M.; Schrock, R. R.*; Müller, P. "Syntheses and Structures of Molybdenum Imido Alkylidene Pyrrolide and Indolide Complexes" *Organometallics* **2008**, *27*, 6570–6578.

[3] Marinescu, S. C.; Toyoki, N.; Mohr, J. T.; Stoltz, B. M.* "Homogeneous Pd-Catalyzed Enantioselective Decarboxylative Protonation" *Org. Lett.* **2008***, 10,* 1039–1042.

[2] Keith, J. A.; Behenna, D. C.; Mohr, J. T.; Ma, S.; Marinescu, S. C.; Oxgaard, J.; Stoltz, B. M.*; Goddard, W. A., III* "The Inner-Sphere Process in the Enantioselective Tsuji Allylation Reaction with (S)-*t*-Bu-phosphinooxazoline Ligands" *J. Am. Chem. Soc*. **2007**, *129*, 11876–11877.

[1] Marinescu, S. C.; Agapie, T.; Day, M. W.; Bercaw, J. E.* "Group 3 Dialkyl Complexes with Tetradentate (L, L, N, O; L = N, O, S) Monoanionic Ligands – Synthesis and Reactivity" *Organometallics* **2007**, *26*, 1178–1190.

Patents

[8] Marinescu, S. C.; Intrator, J. A.; Velazquez, D. A. "Electrocatalytic CO_2 Reduction to Formate by a Cobalt Phosphino-Thiolate Complex", provisional patent, serial number USC0333PRV; 2022-185-001; filed 06/16/2022.

[7] Marinescu, S. C.; Orchanian, N. M. "Immobilized Molecular Wires on Carbon Cloth Electrodes", provisional patent, serial number 62/894,173; filed 08/30/2019.

[6] Marinescu, S. C.; Orchanian, N. M. "Electrocatalytic Syngas Generation with a Cobalt Phosphinothiolate Complex", provisional patent, serial number 62/874,896; filed 07/16/2019.

[5] Marinescu, S. C.; Downes, C. A. "Bioinspired Metal Selenolate Polymers with Tunable Mechanistic Pathways for Efficient H_2 Evolution" provisional patent, USC 0172 PRV; filed 11/17/2016.

[4] Marinescu, S. C.; Chapovetsky, A. "Proton Assisted Reduction of CO_2 by Cobalt Aminopyridine Macrocycles" provisional patent, USC 0151 PRV; filed 04/01/2016.

[3] Marinescu, S. C.; Downes, C. A.; Clough, A. J. "1D- and 2D-Metal-Organic Frameworks for Efficient Hydrogen Evolution from Water" provisional patent, USC 0136 PRV; filed 10/10/2014.

[2] Marinescu, S. C.; Clough, A. J. "2D Metal-Organic Surfaces (MOS) for Efficient Water Reduction" provisional patent, CIT-6775-P, filed 01/16/2014.

[1] Schrock, R. R.; Marinescu, S. C.; Hoveyda, A. H. "Catalysts and Processes for the Formation of Terminal Olefins by Ethenolysis" **2009** U. S. Patent Application M0925.70258WO00.

Media

[6] "Solar energy research takes center stage", by Rhonda Hillbery, USC Dornsife News, May 13, 2019, https://dornsife.usc.edu/news/stories/3016/usc-dornsife-student-researches-solar-energy/

[5] "Childhood interest in chemistry leads to studies of large-scale energy solutions", by Rhonda Hillbery, USC Dornsife News, March 21, 2019, https://dornsife.usc.edu/news/stories/2976/love-of-chemistry/

[4] "The Better Batteries That Will Power Your Phone – and a Green Future/A new framework for Storing Energy" by Jennifer Marcus, USC Trojan Family Magazine, Spring 2019, https://news.usc.edu/trojan-family/battery-technology-usc-green-sustainable-energy/

[3] "A new miniature solution for storing renewable energy", by Ian Chaffee, USC News, October 13, 2017, https://news.usc.edu/129876/a-new-miniature-solution-for-storing-renewable-energy/

[2] "Superlative Scientists", by Susan Bell, USC Dornsife News, February 6, 2014, https://dornsife.usc.edu/news/stories/1625/superlative-scientists/

[1] "Showing the Way to Improved Water-Splitting Catalysts", by Kimm Fesenmaier, Caltech News, September 3, 2012, https://www.caltech.edu/about/news/showing-way-improved-water-splitting-catalysts-23615

Invited presentations

[84] Student hosted seminar, Max-Planck-Institute for Chemical Energy Conversion, Mülheim, Germany, 2023
[83] **Keynote Speaker**, "Materials for Energy Sustainability"; 10th International conference on Advanced Materials & Nanotechnology (AMN-10), Rotorua, New Zealand, February 2023
[82] Otago Future Fuels conference, University of Otago, Dunedin, New Zealand, February 2023
[81] Metals in Biology Gordon Research Conference (GRC), Ventura, CA, January 2023
[80] "Dithiolene-Based Coordination Complexes and Polymers for the Reduction of Protons and CO_2"; 2022 DOE BES Catalysis Science Program PI Meeting, virtual, September 2022
[79] Chemistry departmental seminar, UIUC, Champaign, IL, April 2022
[78] Chemistry departmental seminar, Purdue University, West Lafayette, IN, April 2022
[77] Virtual Chemistry departmental seminar, Cerritos College, Norwalk, CA, March 2022
[76] Virtual Chemistry departmental seminar, Rutgers, The State University of New Jersey, New Brunswick, NJ, March 2022
[75] Virtual Departmental seminar, "Virginia Clean Energy and Catalysis Invited Talk Series", University, of Virginia, Virginia Tech, and Virginia Commonwealth University, November 2021
[74] "Dithiolene-Based Metal-Organic Frameworks for the Electrocatalytic Hydrogen Evolution Reaction"; Summer School 2021, "Conductive Metal-Organic Frameworks – From Synthesis to Functions"; Technische Universität Dresden, Technische Universität München, Germany, September 2021.
[73] Virtual Plenary talk, Harry Gray Award for Creative Work in Inorganic Chemistry by a Young Investigator (2021), "Bioinspired Coordination Complexes and Polymers for Solar Energy Conversion", ACS National Meeting, April 2021
[72] Symposium #246 entitled "Electronic/ionic transport in metal organic frameworks for energy device applications"; PacificChem 2020, Hawaii, December 2020 – canceled due to COVID-19
[71] Symposium #171 entitled "New challenges in energy chemistry"; PacificChem 2020, Hawaii, December 2020 – canceled due to COVID-19
[70] Symposium entitled "Functional Conductive Metal Organic Frameworks"; NanoGe Conference, Barcelona, Spain, October 2020 – canceled due to COVID-19
[69] U.S.-German Workshop on "Artificial Photosynthesis"; Berlin, Germany, June 2020 – held via Zoom due to COVID-19
[68] International Conference of Porphyrin and Pthalocyanine (ICCP-11), Buffalo, NY, July 2020 – canceled due to COVID-19
[67] Chemistry departmental seminar, Stanford University, Palo Alto, CA, April 2020 – canceled due to COVID-19
[66] Chemistry departmental seminar, Princeton University, Princeton, NJ, April 2020 – canceled due to COVID-19
[65] Chemistry departmental seminar, Boston University, Boston, MA, January 2020
[64] Chemistry departmental seminar, California State University, Long Beach, CA, October 2019
[63] Chemistry departmental seminar, University of British Columbia, Vancouver, Canada, September 2019
[62] "Efficient CO_2 Reduction by Bioinspired Cobalt Aminopyridine Complexes"; ACS National Meeting, San Diego, CA, August 2019
[61] "CO_2 Reduction by Immobilized Rhenium Bipyridine Moieties"; Division of Analytical Chemistry; ACS National Meeting, San Diego, CA, August 2019
[60] "Conductive Metal-Organic Frameworks for Electrocatalytic H_2 Evolution"; ACS National Meeting, San Diego, CA, August 2019
[59] Organometallic Chemistry Gordon Research Conference (GRC), Newport, RI, July 2019
[58] "Conductive Metal Dithiolene Frameworks for Electrocatalytic H_2 Production"; Canadian Society for Chemistry Meeting, Quebec, Canada, June 2019
[57] Chemistry departmental seminar, University of Washington, Seattle, WA, May 2019
[56] Chemistry departmental seminar, Columbia University, New York, NY, May 2019
[55] Chemistry departmental seminar, Cornell University, Ithaca, NY, May 2019

[54] Chemistry departmental seminar, University of Rochester, Rochester, NY, May 2019
[53] Chemistry departmental seminar, Caltech, Pasadena, CA, May 2019
[52] Chemistry departmental seminar, UCLA, Los Angeles, CA, May 2019
[51] Chemistry departmental seminar, University of California Berkeley, Berkeley, CA, April 2019
[50] "Conductive Metal Dithiolene Frameworks for Electrocatalytic H_2 Production"; ACS National Meeting, Orlando, FL, March 2019
[49] "Bioinspired Coordination Complexes and Polymers for Energy Applications"; ACS National Meeting, Orlando, FL, March 2019
[48] "Cobalt Catalysts with Pendant Hydrogen-Bond Donor for Electrocatalytic CO_2 Reduction"; ACS National Meeting, Orlando, FL, March 2019
[47] Chemistry departmental seminar, University of California Irvine, Irvine, CA, February 2019
[46] Chemistry departmental seminar, Harvey Mudd College, Claremont, CA, December 2018
[45] Chemistry departmental seminar, University of Texas at Austin, Austin, TX, November 2018
[44] Chemistry departmental seminar, Texas A&M University, College Station, TX, November 2018
[43] Chemistry departmental seminar, University of Houston, Houston, TX, November 2018
[42] Chemistry departmental seminar, MIT, Cambridge, MA, November 2018
[41] Chemistry departmental seminar, North Carolina State University, Raleigh, NC, October 2018
[40] Chemistry departmental seminar, UNC Chapel Hill, Chapel Hill, NC, October 2018
[39] Chemistry departmental seminar, Yale University, New Haven, CT, October 2018
[38] Chemistry departmental seminar, University of Pennsylvania, Philadelphia, PA, September 2018
[37] Chemistry departmental seminar, John Hopkins University, Baltimore, MD, September 2018
[36] "Conductive Metal-Organic Frameworks (MOFs) for Electrocatalytic Applications"; 256th ACS National Meeting, Boston, MA, August 2018
[35] Center for Chemical Innovation Capstone Meeting, Ventura, CA, July 2018
[34] Renewable Energy: Solar Fuels GRC (poster talk), Ventura, CA, January 2018
[33] Chemistry departmental seminar, University of California, Santa Barbara, CA, October 2017
[32] Chemistry departmental seminar, Colorado School of Mines, Golden, CO, September 2017
[31] National Renewable Energy Laboratory (NREL), Golden, CO, September 2017
[30] Chemistry departmental seminar, University of Notre Dame, Notre Dame, IN, August 2017
[29] "Metal Dithiolene Frameworks with Tunable Physical and Chemical Properties"; 254th ACS National Meeting, Washington, DC, August 2017
[28] 2nd International Solar Fuels, San Diego, CA, July 2017
[27] "One and two dimensional cobalt dithiolene frameworks for artificial photosynthesis"; 253th ACS National Meeting, San Francisco, CA, April 2017
[26] "H_2 Evolution by Metal Chalcogenide Coordination Polymers, Highly Active Molecular Models of [NiFe] Hydrogenases"; 253th ACS National Meeting, San Francisco, CA, April 2017
[25] "Proton-Assisted Reduction of CO_2 by Cobalt Aminopyridine Complexes"; 253th ACS National Meeting, San Francisco, CA, April 2017
[24] Sandia National Laboratory, Livermore, CA, March 2017
[23] Chemistry departmental seminar; UC Davis, Davis, CA, March 2017
[22] Inorganic Reaction Mechanisms GRC (poster talk), Galveston, TX, March 2017
[21] 2016 Nanoporous Materials Genome Center, University of Minnesota, Minneapolis, MN, October 2016
[20] MOF-2016, Long Beach, CA, September 2016
[19] Université Paris Diderot, Paris, France, July 2016
[18] 42th International Conference on Coordination Chemistry, Brest, France, July 2016
[17] Inorganic Chemistry GRC (poster talk), Biddeford, ME, June 2016
[16] Stauffer Symposium, USC, Los Angeles, CA, April 2016
[15] Electrochemistry GRC (poster talk), Ventura, CA, January 2016
[14] Chemistry departmental seminar, California State University, Los Angeles, Los Angeles, CA, October 2015
[13] Chemistry departmental seminar, California State University, Long Beach, CA, December 2013
[12] Center for Chemical Innovation (CCI) Annual Retreat, Huntington Beach, CA, January 2013
[11] Chemistry departmental seminar, Harvard University, Boston, MA, January 2013
[10] Chemistry departmental seminar, University of Southern California, Los Angeles, CA, January 2013
[9] Chemistry departmental seminar, UCLA, Los Angeles, CA, January 2013
[8] Chemistry departmental seminar, University of Washington, Seattle, Seattle, WA, January 2013

[7] Chemistry departmental seminar, Princeton University, Princeton, NJ, January 2013
[6] Chemistry departmental seminar, Yale University, New Haven, CT, December 2012
[5] Chemistry departmental seminar, University of California, Riverside, Riverside, CA, December 2012
[4] Chemistry departmental seminar, University of California, San Diego, San Diego, CA, November 2012
[3] CCI Annual Retreat, Huntington Beach, CA, January 2012
[2] Bruker-MIT Symposium, Boston, MA, January 2011
[1] Chemistry departmental seminar, Caltech, Pasadena, CA, September 2010

PI's and All-hands Meetings

[5] 2020 Nanoporous Materials Genome Center Annual All-hands Meeting, Virtual Meeting, October 2020
[4] 2019 Nanoporous Materials Genome Center Annual All-hands Meeting, University of Minnesota, Minneapolis, MN, September 2019
[3] DOE-BES PI meeting, Catalysis Science program, July 2019
[2] 2018 Nanoporous Materials Genome Center Annual All-hands Meeting, University of Minnesota, Minneapolis, MN, September 2018
[1] 2017 Nanoporous Materials Genome Center Annual All-hands Meeting, University of Minnesota, Minneapolis, MN, October 2017

Scientific Service

2019	Ad hoc referee for the 2019 Rose Hills Foundation Research Fellowship competition, USC
'17, '20, '21, '22	Reviewer panelist for the *National Science Foundation*
2016–present	Ad hoc referee for the following funding agencies: Department of Energy (2018-); Israel Science Foundation (2017-); National Science Foundation (2016-); W. M. Keck Foundation (2014-)
2013–present	Ad hoc referee for the following journals: *Accounts of Chemical Research* (2017-); *ACS Applied Materials & Interfaces* (2017-); *ACS Applied Energy Materials* (2019-present); *ACS Catalysis* (2016-); *ACS Central Science* (2018-); *ACS Energy Letters* (2016-); Advanced Science (2018-); *Angewandte Chemie International Edition* (2016-); *Chemical Communications* (2017-); *Chemical Materials* (2019-); *Chemical Reviews* (2018-); *Chemical Sciences* (2016-); *ChemSusChem* (2017-); *Coordination Chemical Reviews* (2018-); *Dalton Transactions* (2018-); *Inorganic Chemistry* (2014-); *Inorganic Chemistry Frontiers* (2016-); *Journal of Catalysis* (2018-present); *Journal of the American Chemical Society* (2015-); *Journal of Physical Chemistry Letters* (2017-); *Nature Chemistry* (2019-); *Nature Communications* (2016-); *Organometallics* (2016-); *Physical Chemistry Chemical Physics* (2017-); *Polyhedron* (2014-)
2015–present	Presider at the following conferences: ACS National Meeting, San Diego, CA, August 2019; ACS National Meeting, Orlando, FL, March 2019; 254th ACS National Meeting, Washington, DC, August 2017; 251th ACS National Meeting, San Diego, CA, March 2016; 250th ACS National Meeting, Boston, MA, August 2015
2017	Presenter at USC workshop for prospective NSF Career applicants to offer advice on preparing competitive proposals
2017	Consultative committee member, Chemistry department, USC
'14, '16, '17	Poster judge in the annual Stauffer symposium poster competition, USC
2016–2019	Faculty organizer of a seminar series (Journal Club), where students and postdoctoral scholars in the Chemistry Department presented their research on a monthly basis, USC
2014–present	Mentor for seven REU students and one Cerritos College student
2016	Edited the Project Description and Summary files for the 2016 REU proposal submitted to the NSF
2014–present	Performed outreach activities in collaboration with the USC MESA (Mathematics, Engineering, Science Achievement) and the USC Joint Educational Project (JEP) programs for K–12 students in the Los Angeles area
2013–present	Women In Chemistry Faculty Mentor, USC – developed a women-specific mentoring program, which matches incoming with senior graduate students, and postdoctoral

	scholars with faculty, to provide support by answering questions and giving advice throughout their academic career
2013–2015	Graduate Recruitment Committee member, USC