
Address: School of Molecular Sciences
Arizona State University
Tempe, AZ 85287-1604, U.S.A.

Phone: (480) 727-9578

Fax: (480) 965-2747

Email: gfmoores@asu.edu

Web: <http://www.gfmooreslab.com>

Education: **Yale University**, New Haven, CT (2009 – 2011)

Postdoctoral Fellowship

Advisors: Gary W. Brudvig and Robert H. Crabtree

Arizona State University, Tempe, AZ (2004 – 2009)

Ph.D. Chemistry and Biochemistry

Advisor: Ana L. Moore

The Evergreen State College, Olympia, WA (1998 – 2004)

B.S. Chemistry

Advisor: Peter J. Pessiki

Employment: **Arizona State University**, Tempe, AZ

Associate Professor (2020 – present)

Assistant Professor (2014 – 2020)

Berkeley Lab, Berkeley, CA

Principal Investigator and Staff Scientist (2011 – 2014)

Internships: **Université Paris–Sud**, Laboratoire de Chimie Inorganique, Orsay, France
(summer 2005)

University of Pennsylvania, Biochemistry Biophysics, Philadelphia, PA
(summer 2002)

Fellowships, Awards, and Honors:

(21) Department of Energy Early Career Research Award (2020) (one of 76 faculty nationwide)

(20) Scialog Fellow (2020)

(19) Camille Dreyfus Teacher-Scholar Award (2020) (*one of 14 faculty nationwide*)

(18) ARCS Foundation Exceptional Mentor Award (2018) (*one of three doctoral mentors recognized nationally*)

(17) Journal of Materials Chemistry Emerging Investigator (2018)

- (16) ASU Laboratory Safety Innovation Award (2018)
- (15) Electron Donor-Acceptor Interactions GRC Emerging Investigator (2018) (*one of three selected junior faculty presentations*)
- (14) National Science Foundation CAREER Award (2017)
- (13) Julie Ann Wrigley Global Institute for Sustainability Scholar (2017)
- (12) Photochemistry GRC Emerging Investigator (2017) (*one of two selected junior faculty presentations*)
- (11) Yale Edward A. Bouchet Honor Society Fellow (2011 – present)
- (10) Camille and Henry Dreyfus Foundation Energy Fellow (2009 – 2011)
- (9) Baruch '60 Center for Solar Energy Research Award (2011)
- (8) Connecticut Clean Energy Award (2011)
- (7) Renewable Energy: Solar Fuels GRC Young Investigator Award (2009)
- (6) ARCS Foundation Scholar (2008 – 2009)
- (5) Electron Donor-Acceptor Interactions GRC Young Investigator Award (2008)
- (4) Photosynthesis GRC Young Investigator Award (2008)
- (3) Carl Storm Underrepresented Minority Fellow (2006)
- (2) Alliance for Graduate Education and Professoriate Fellow (2006 – 2009)
- (1) National Science Foundation Fellow (2004 – 2009)

I. Scholarship

Citation Indices (based on [Google Scholar](#))

Citations: 2985 (October 2021); **H-index:** 28; **i10-index:** 37

Publications

A. Journal Articles (49 total)

As ASU Faculty (29 total):

- (49) Nishiori, D. (graduate student); Wadsworth, B. L. (graduate student); Moore, G. F. **Parallels Between Enzyme Catalysis, Electrocatalysis, and Photoelectrosynthesis**. *Chem Catalysis*. **2021**, doi:<https://doi.org/10.1016/j.checat.2021.09.008> (Impact Factor: not available / new Cell Press journal, Contributions: corresponding author).
- (48) Nguyen, N. P. (graduate student); Moore, G. F. **Storing Sunlight at Low Temperatures?** *Joule*. **2021**, doi:doi.org/10.1016/j.joule.2021.08.012. (Impact Factor: 41.248, Contributions: corresponding author).

- (47) Reyes Cruz, E. A. (graduate student); Nishiori, D. (graduate student); Wadsworth, B. L. (graduate student); Khusnutdinova, D. (graduate student); Karcher, T. (academic professional); Landrot, G. (staff scientist); Lassalle-Kaiser, B. (staff scientist); Moore, G. F. **Six-Electron Chemistry of a Binuclear Fe(III) Fused Porphyrin**. *ChemElectroChem*. **2021**, *8*, 3614-3620 (Cover Article / Special issue honoring Prof. Jean-Michel Savéant) (Impact Factor: 4.154, Contributions: corresponding author, designed experiments, and advised students).
- (46) Nishiori, D. (graduate student); Wadsworth, B. L. (graduate student); Reyes Cruz, E. A. (graduate student); Hensleigh, L. K. (graduate student); Karcher, T. (academic professional); Moore, G. F. **Photoelectrochemistry of Metalloporphyrin-Modified GaP Semiconductors**. *Photosynth. Res.* **2021**, doi.org/10.1007/s11120-021-00834-2 (In press as part of a special issue co-edited by Elizabeth Young and Gary F. Moore on "Photochemistry and Electrochemistry of Natural and Artificial Photosynthesis") (Impact Factor: 3.630, Contributions: corresponding author, designed experiments, and advised students).
- (48) Yoneda, Y. (postdoctoral researcher); Mora, S. J. (postdoctoral researcher); Shee, J.; Wadsworth, B. L. (graduate student); Arsenault, E. (graduate student); Hait, D. (graduate student); Kodis, G. (research professor); Gust, D. (professor); Moore, G. F.; Moore, A. L. (professor); Head-Gordon, M. (professor); Moore, T. A. (professor); Fleming, G. (professor). **Electron-Nuclear Dynamics Accompanying Proton-Coupled Electron Transfer**. *J. Am. Chem. Soc.* **2021**, *143*, 3104-3112. (Impact Factor: 14.695, Contributions: corresponding author, designed experiments, and advised students).
- (44) Nguyen, N. P. (graduate student); Wadsworth, B. L. (graduate student); Nishiori, D. (graduate student); Reyes Cruz, E. A. (graduate student); Moore, G. F. **Understanding and Controlling the Performance-Limiting Steps of Catalysts-Modified Semiconductors**. *J. Phys. Chem. Lett.* **2021**, *12*, 199-203. (Impact Factor: 6.71, Contributions: corresponding author, designed experiments, and advised students).
- (43) Guerra, W. D. (postdoctoral researcher); Odella, E. (postdoctoral researcher); Sector, M. (graduate student); Goings, J. J. (graduate student); Wadsworth, B. L. (graduate student); Gervaldo, M. (professor); Sereno, L. E. (professor); Moore, T. A. (professor); Moore, G. F.; Hammes-Schiffer, S. (professor); Moore, A. L. (professor). **Role of Intact Hydrogen-Bond Networks in Multiproton-Coupled Electron Transfer**. *J. Am. Chem. Soc.* **2020**, *142*, 21842-21851. (Impact Factor: 14.695, Contributions: corresponding author, designed experiments, and advised students).
- (42) Wadsworth, B. L. (graduate student); Nguyen, N. P. (graduate student); Nishiori, D. (graduate student); Belier, A. M. (graduate student); Moore, G. F. **Addressing the Origin of Photocurrents and Fuel Production Activities in Catalyst-Modified Semiconductor Electrodes**. *ACS Appl. Energy Mater.* **2020**, *8*, 7512-7519. (Cover article) (Impact Factor: 4.473, Contributions: corresponding author, designed experiments, and advised students).

- (41) Wadsworth, B. L. (graduate student); Nishiori, D. (graduate student); Nguyen, N. P. (graduate student); Nishiori, D. (graduate student); Reyes Cruz, E. A. (graduate student); Moore, G. F. **Electrochemistry of Polymeric Cobaloxime-Containing Assemblies in Organic and Aqueous Solvents**. *ECS J. Solid State Sci. Technol.* **2020**, *9*, 061018 (Invited contribution for a special issue in honor of Karl M. Kadish) (Impact Factor: 1.558, Contributions: corresponding author, designed experiments, and advised students).
- (40) Odella, E. (postdoctoral researcher); Mora, S. J. (postdoctoral researcher); Wadsworth, B. L. (graduate student); Goings, J. J. (graduate student); Gervaldo, M. (professor); Sereno, L. E. (professor); Groy, T. L. (technician); Gust, D. (professor); Moore, T. A. (professor); Moore, G. F.; Hammes-Schiffer, S. (professor); Moore, A. L. (professor). **Proton-Coupled Electron Across Benzimidazole Bridges in Bioinspired Proton Wires**. *Chem. Sci.* **2020**, *11*, 3820-3828. (Impact Factor: 9.556, Contributions: corresponding author, designed experiments, and advised students).
- (39) Wadsworth, B. L. (graduate student); Khusnutdinova, D. (graduate student); Urbine, J. M. (undergraduate student); Reyes, A. (undergraduate student); Moore, G. F. **Expanding the Redox Range of Surface-Immobilized Metallocomplexes using Molecular Interfaces**. *ACS Appl. Mater. Interfaces.* **2020**, *12*, 3903-3911. (Cover article) (Impact Factor: 8.456, Contributions: corresponding author, designed experiments, and advised students).
- (38) Wadsworth, B. L. (graduate student); Beiler, A. M. (graduate student); Khusnutdinova, D. (graduate student); Reyes Cruz, E. A. (graduate student); Moore, G. F. **Interplay Between Light Flux, Quantum Efficiency, and Turnover Frequency in Molecular-Modified Photoelectrosynthetic Assemblies**. *J. Am. Chem. Soc.* **2019**, *141*, 15932-15941. (Cover article) (Impact Factor: 14.695, Contributions: corresponding author, designed experiments, and advised students).
- (37) Odella, E. (postdoctoral researcher); Wadsworth, B. L. (graduate student); Mora, S. J. (postdoctoral researcher); Goings, J. J. (graduate student); Huynh, M. T. (postdoctoral researcher); Gust, D. (professor); Moore, T. A. (professor); Moore, G. F.; Hammes-Schiffer, S. (professor); Moore, A. L. (professor). **Proton-Coupled Electron Transfer Drives Long-Range Proton Translocation in Bioinspired Systems**. *J. Am. Chem. Soc.* **2019**, *141*, 14057-14061. (Cover Article) (Impact Factor: 14.695, Contributions: corresponding author, designed experiments, and advised students).
- (36) Khusnutdinova, D. (graduate student); Wadsworth, B. L. (graduate student); Flores, M. (senior research professional); Beiler, A. M. (graduate student); Reyes Cruz, E. A. (graduate student); Zenkov, Y. (undergraduate student); Moore, G. F. **Electrocatalytic Properties of Binuclear Cu(II) Fused Porphyrins for Hydrogen Evolution**. *ACS Catal.* **2018**, *8*, 9888-9898. (Cover article) (Impact Factor: 12.221, Contributions: corresponding author, designed experiments, and advised students).

- (35) Wadsworth, B. L. (graduate student); Khusnutdinova, D. (graduate student); Moore, G. F. **Polymeric Coatings for Applications in Electrocatalytic and Photoelectrosynthetic Fuel Production**. *J. Mater. Chem. A* **2018**, *6*, 21654-21665. (Invited contribution for a special issue on emerging investigators) (Impact Factor: 10.733, Contributions: corresponding author, designed experiments, and advised students).
- (34) Odella, E. (postdoctoral researcher); Mora, S. J. (postdoctoral researcher); Wadsworth, B. L. (graduate student); Huynh, M. T. (postdoctoral researcher); Goings, J. J. (graduate student); Liddell, P. A. (technician); Groy, T. L. (technician); Gervaldo, M. (professor); Sereno, L. E. (professor); Gust, D. (professor); Moore, T. A. (professor); Moore, G. F.; Hammes-Schiffer, S. (professor); Moore, A. L. (professor). **Controlling Proton-Coupled Electron Transfer in Bioinspired Artificial Photosynthetic Relays**. *J. Am. Chem. Soc.* **2018**, *140*, 15450-15460. (Impact Factor: 14.695, Contributions: corresponding author, designed experiments, and advised students).
- (33) Khusnutdinova, D. (graduate student); Beiler, A. M. (graduate student); Wadsworth, B. L. (graduate student); Nanyangwe, S. K. (undergraduate student); Moore, G. F. **Vibrational Structure Analysis of Cobalt Fluoro-Porphyrin Surface Coatings on Gallium Phosphide**. *J. Porphyrins Phthalocyanines*. **2018**, *22*, 461-466. (Invited research article / Cover article) (Impact Factor: 1.292, Contributions: corresponding author, designed experiments, and advised students).
- (32) Ardo, S.; Rivas, D. F.; Modestino, M.; Greiving, V. S.; Abdi, F.; Llado, E. A.; Artero, V.; Ayers, K.; Battaglia, C.; Becker, J-P.; Bederak, D.; Berger, A.; Buda, F.; Chinello, E.; Dam, B.; Palma, V. D.; Edvinsson, T.; Fujii, K. Gardeniers, H.; Geerlings, H.; Hashemi, M.; Haussener, S.; Houle, F.; Huskens, J.; James, B.; Konrad, K.; Kudo, A.; Kunturu, P. P.; Lohse, D Mei, B.; Miller, E.; Moore, G. F.; Muller, J.; Orchard, K.; Post, R.; Rosser, T.; Saadi, F.; Schüttauf, J-F.; Seger, B.; Sheehan, S.; Spurgeon, J.; Tang, M.; van de Krol, R.; Vesborg, P.; Westerik, P. **Pathways to Electrochemical Solar Hydrogen Technologies**. *Energy Environ. Sci.* **2018**, *11*, 2768-2783. (A report on the Lorentz Center Workshop: *Pathways to Solar Hydrogen Technologies*) (Impact Factor: 33.250, Contributions: author and meeting participant).
- (31) Mora, S. J. (postdoctoral researcher); Odell, E. (postdoctoral researcher); Gust, D. (professor); Moore, G. F.; Moore T. A. (professor); Moore, A. L. (professor). **Proton-Coupled Electron Transfer in Artificial Photosynthetic Systems**. *Acc. Chem. Res.* **2018**, *51*, 445-453. (Invited review article) (Impact Factor: 21.661, Contributions: contributing author).
- (30) Khusnutdinova, D. (graduate student); Flores, M. (Senior Research Professional); Beiler, A. M. (graduate student); Moore, G. F. **Synthesis and Characterization of a Cobalt(II) Tetrakis(3-fluorophenyl)porphyrin with a Built-in 4-Vinylphenyl Surface Attachment Moiety**. *Photosynthetica*. **2018**, *56*, 67-74. (Invited research article) (Impact Factor: 2.365, Contributions: corresponding author, designed experiments, and advised students).
- (29) Beiler, A. M. (graduate student); Moore, G. F. **Multi-Electron Transfer Photochemistry: Caught in the Act**. *Nat. Chem.* **2018**, *10*, 3-4. (Invited news and views article) (Impact Factor: 27.347, Contributions: corresponding author).

- (28) Beiler, A. M. (graduate student); Khusnutdinova, D. (graduate student); Wadsworth, B. L. (graduate student); Moore, G. F. **Cobalt Porphyrin-Polypyridyl Surface Coatings for Photoelectrosynthetic Hydrogen Production.** *Inorg. Chem.* **2017**, *56*, 12178-12185. (Impact Factor: 4.850, Contributions: corresponding author, designed experiments, and advised students).
- (27) Khusnutdinova, D. (graduate student); Beiler, A. M. (graduate student); Wadsworth, B. L. (graduate student); Jacob, S. I. (undergraduate student); Moore, G. F. **Metalloporphyrin-Modified Semiconductors for Solar Fuel Production.** *Chem. Sci.* **2017**, *8*, 253-259. (Impact Factor: 9.556, Contributions: corresponding author, designed experiments, and advised students).
- (26) Wadsworth, B. L. (graduate student); Beiler, A. M. (graduate student); Khusnutdinova, D. (graduate student); Jacob, S. I. (undergraduate student); Moore, G. F. **Electrocatalytic and Optical Properties of Cobaloxime Catalysts Immobilized at a Surface-Grafted Polymer Interface.** *ACS Catal.* **2016**, *6*, 8048-8057. (Impact Factor: 12.221, Contributions: corresponding author, designed experiments, and advised students).
- (25) Beiler, A. M. (graduate student); Khusnutdinova, D. (graduate student); Jacob, S. I. (undergraduate student); Moore, G. F. **Solar Hydrogen Production Using Molecular Catalysts Immobilized on Gallium Phosphide (111)A and (111)B Polymer-Modified Photocathodes.** *ACS Appl. Mater. Interfaces.* **2016**, *8*, 10038-10043. (Impact Factor: 8.456, Contributions: corresponding author, designed experiments, and advised students).
- (24) Beiler, A. M. (graduate student); Khusnutdinova, D. (graduate student); Jacob, S. I. (undergraduate student); Moore, G. F. **Chemistry at the Interface: Polymer-Functionalized Semiconductors for Solar Hydrogen Production.** *Ind. Eng. Chem. Res.* **2016**, *55*, 5306-5314. (Invited Article) (Impact Factor: 3.375, Contributions: corresponding author, designed experiments, and advised students).
- (23) Cedeno, D. (postdoctoral researcher); Krawicz, A. (postdoctoral researcher); Moore, G. F. **Hybrid Photocathodes for Solar Fuel: Coupling Molecular Fuel-Production Catalysts with Solid-State Light Harvesting and Conversion Technologies.** *Interface Focus.* **2015**, *5*, 20140085. (Impact Factor: 3.092 Contributions: This article is based on an invited presentation given at The Royal Society at Chicheley Hall, Buckinghamshire on the themed meeting topic: "Do we need a Global Project on Artificial Photosynthesis?").
- (22) Ravensbergen, J. (graduate student); Brown, C. L. (graduate student); Moore, G. F.; Frese R. N. (professor); van Grondelle, R. (professor); Gust, D. (professor); Moore; T. A. (professor); Moore, A. L. (professor); Kennis, J. T. M. (professor). **Kinetic Isotope Effect of Proton-Coupled Electron Transfer in a Hydrogen Bonded Phenol-Pyrrolidino[60]fullerene.** *Photochem. Photobiol. Sci.* **2015**, *14*, 2147-2150. (Impact Factor: 2.408, Contributions: contributing author, designed and performed synthesis and characterization measurements).

(21) Cedeno, D. (postdoctoral researcher); Krawicz, A. (postdoctoral researcher); Doak, P. (graduate student); Yu, M. (postdoctoral researcher); Neaton, J. B. (professor and senior staff scientist); Moore, G. F. **Using Molecular Design to Control the Performance of Hydrogen-Producing Polymer-Brush-Modified Photocathodes.** *J. Phys. Chem. Lett.* **2014**, *5*, 3222-3226. (Impact Factor: 8.709, Contributions: corresponding author, designed experiments, and advised students).

As a Staff Scientist at Berkeley Lab (9 total):

(20) Krawicz, A. (postdoctoral researcher); Cedeno, D. (postdoctoral researcher); Moore, G. F. **Energetics and Efficiency Analysis of a Cobaloxime-Modified Semiconductor at Simulated Air Mass 1.5 Illumination.** *Phys. Chem. Chem. Phys.* **2014**, *16*, 15818-15824. (Cover article) (Impact Factor: 3.567, Contributions: corresponding author, designed experiments, and advised students).

(19) Krawicz, A. (postdoctoral researcher); Yang, J.; Anzenberg, E.; Yano, J.; Sharp, I. D.; Moore, G. F. **Photofunctional Construct That Interfaces Molecular Cobalt-Based Catalysts for H₂ Production to a Visible-Light-Absorbing Semiconductor.** *J. Am. Chem. Soc.* **2013**, *135*, 11861-11868. (Impact Factor: 14.695, Contributions: corresponding author, designed experiments, and advised students).

(18) Faunce, T. A.; Lubitz, W.; Rutherford, A. W.; MacFarlane D.; Moore, G. F.; Yang, P.; Nocera, D. G.; Moore, T. A.; Gregory, D. H.; Fukuzumi, S.; Yoon, K. B.; Armstrong, F. A.; Wasielewski, M. R. **Energy and Environment Policy Case for a Global Project on Artificial Photosynthesis.** *Energy Environ. Sci.* **2013**, *6*, 695-698. (Impact Factor: 33.250, Contributions: coauthored publication and contributed intellectual input on science and policy).

(17) Moore, G. F.; Sharp, I. D. **A Noble-Metal-Free Hydrogen Evolution Catalyst Grafted to Visible Light-Absorbing Semiconductors.** *J. Phys. Chem. Lett.* **2013**, *13*, 568-572. (Impact Factor: 6.71, Contributions: corresponding author as well as designed and executed experiments).

(16) Milot, R. L.; Moore, G. F.; Crabtree, R. H.; Brudvig, G. W.; Schmuttenmaer, C. A. **Electron Injection Dynamics from Photoexcited Porphyrin Dyes into SnO₂ and TiO₂ Nanoparticles.** *J. Phys. Chem. C.* **2013**, *117*, 21662-21670. (Impact Factor: 4.484, Contributions: designed and synthesized synthetic targets for collaborative computational studies).

(15) Ugeda, M.; Yu, M.; Bradley, A.; Doak, P.; Liu, W.; Moore, G. F.; Sharp, I.; Tilley, T. D.; Neaton, J.; Crommie, M. **Adsorption and Stability of π -Bonded Ethylene on GaP(110).** *J. Phys. Chem. C.* **2013**, *117*, 26091-26096. (Impact Factor: 4.484, Contributions: designed experiments, and advised students).

(14) Moore, G. F. **Molecular and Nanoscale Interfaces for a Global Scale Challenge.** *European Photochemical Society Newsletter.* **2013**, July, 91-92. (Contributions: authored research review and perspective).

- (13) Martini, A. L.; Moore, G. F. Milot, R. L.; Cai, L. Z.; Sheehan, S. W.; Schmuttenmaer, C. A.; Brudvig, G. W.; Crabtree, R. H. **Modular Assembly of High-Potential Zinc Porphyrin Photosensitizers Attached to TiO₂ with a Series of Anchoring Groups**. *J. Phys. Chem. C*. **2013**, *117*, 14526-14533. (Impact Factor: 4.484, Contributions: designed experiments and advised graduate, and undergraduate students).
- (12) Najafpour, M. M.; Shen, J.-R.; Barber, J.; Moore, G. F.; Govindjee **Running on Sun**. *Chemistry World*. **2012**, November, 43. ("On the centenary of Giacomo Ciamician's paper predicting a solar-fueled future, five experts discuss the promise and challenges of artificial photosynthesis").

As a Postdoctoral Fellow at Yale University (5 total):

- (11) Moore, G. F.; Konezny, S. J.; Song, H.; Milot, R. L.; Blakemore; J. D.; Lee, M. L.; Batista, V. S.; Schmuttenmaer, C. A.; Crabtree, R. H.; Brudvig, G. W. **Bioinspired High-Potential Porphyrin Photoanodes**. *J. Phys. Chem. C*. **2012**, *116*, 4892-4509. (Impact Factor: 4.484, Contributions: spearheaded publication, designed and performed synthesis, characterization and performance measurements).
- (10) Moore, G. F.; Ananyev, G. M.; Govindjee **Young Research Investigators Honored at 2012 Gordon Research Conference on Photosynthesis**. *Photosynth. Res.* **2012**, *114*, 137-142. (Impact Factor: 3.091, Contributions: coauthored report on the 2012 Gordon Research Conference on Photosynthesis that focuses on four young investigators who were presented awards during the conference).
- (9) Moore, G. F.; Megiatto, J. D.; Hambourger, M.; Gervaldo, M.; Kodis, G.; Gust, D.; Moore, T. A.; Moore, A. L. **Optical and Electrochemical Properties of Hydrogen-Bonded Phenol-Pyrrolidino[60]fullerenes**. *Photochem. Photobiol. Sci.* **2012**, *6*, 1018-1025. (Impact Factor: 2.408, Contributions: spearheaded publication, designed and performed synthesis and characterization measurements).
- (8) Moore, G. F.; Blakemore, J. D.; Milot, R. L.; Hull, J.; Song, H; Cai, L; Schmuttenmaer, C. A.; Crabtree, R. H.; Brudvig, G. W. **A Visible Light Water-Splitting Cell with a Photoanode Formed by Codeposition of a High-Potential Porphyrin and a Homogeneous Iridium Water-Oxidation Catalyst**. *Energy Environ. Sci.* **2011**, *4*, 2389-2892. (Impact Factor: 33.250, Contributions: spearheaded publication, designed and performed synthesis, characterization and performance measurements).
- (7) Moore, G. F.; Brudvig, G. W. **Energy Conversion in Photosynthesis: A Paradigm for Solar Fuel Production**. *Annu. Rev. Condens. Matter Phys.* **2011**, *2*, 303-327. (Impact Factor: 18.588, Contributions: coauthored a comprehensive review on solar energy conversion).

As a Graduate Student at ASU (6 total):

- (6) Moore, G. F.; Hambourger, M.; Kodis, G.; Michl, W.; Gust, D.; Moore, T. A.; Moore, A. L. **Effects of Protonation State on a Tyrosine-Histidine Bioinspired Mediator**. *J. Phys. Chem. B.* **2010**, *114*, 14450-14457. (Impact Factor: 3.146, Contributions: spearheaded publication, designed and performed synthesis, characterization and performance measurements).
- (5) Hambourger, M.; Kodis, G.; Vaughn, M.; Moore, G. F.; Gust, D.; Moore, A. L.; Moore, T. A. **Solar Energy Conversion in a Photoelectrochemical Biofuel Cell**. *Dalton Transactions.* **2009**, 45, 9979-9989. (Impact Factor: 4.099, Contributions: coauthored a review on photoelectrochemical biofuel cells).
- (4) Hambourger, M.; Moore, G. F.; Kramer, D. M.; Gust, D.; Moore, A. L.; Moore, T. A. **Biology and Technology for Photochemical Fuel Production**. *Chem. Soc. Rev.* **2009**, *38*, 25-35. (Impact Factor: 40.443, Contributions: coauthored a comprehensive tutorial review on solar energy conversion).
- (3) Moore, G. F.; Hambourger, M.; Gervaldo, M.; Poluektov, O. G.; Rajh, T.; Gust, D.; Moore, T. A.; Moore, A. L. **A Bioinspired Construct that Mimics the Proton Coupled Electron Transfer between P680 and the TyrZ-His190 Pair of Photosystem II**. *J. Am. Chem. Soc.* **2008**, *130*, 10466-10467. (Impact Factor: 14.695, Contributions: spearheaded publication, designed and performed synthesis and characterization measurements).
- (2) Rizzi, A. C.; van Gestel, M.; Liddell, P. A.; Palacios, R. E.; Moore, G. F.; Kodis, G.; Moore, A. L.; Moore, T. A.; Gust, D.; Braslavsky, S. E. **Entropic Changes Control the Charge Separation Process in Triads Mimicking Photosynthetic Charge Separation**. *J. Phys. Chem. A.* **2008**, *112*, 4215-4223. (Impact Factor: 4.484, Contributions: coauthored publication, performed synthesis and characterization measurements).
- (1) Berera, R.; Moore, G. F.; van Stokkum, I. H. M.; Kodis, G.; Liddell, P. A.; Gervaldo, M.; van Grondelle, R.; Kennis, J. T. M.; Gust, D.; Moore, T. A.; Moore, A. L. **Charge Separation and Energy Transfer in a Caroteno-C60 Dyad: Photoinduced Electron Transfer From the Carotenoid Excited States**. *Photochem. Photobiol. Sci.* **2006**, *5*, 1142-1149. (Cover article) (Impact Factor: 2.408, Contributions: coauthored publication, performed synthesis and characterization measurements).

B. Invited Book Chapter Publications**As ASU Faculty:**

- (1) **Concluding Remarks and Future Perspectives**. Gary F. Moore (2016) in **Photosynthesis: Structures, Mechanisms, and Applications** Chapter 20 (Harvey J. M. Hou, Mohammad Mahdi Najafpour, Gary F. Moore and Suleyman I. Allakhverdiev, eds.) Springer International Publishing.

C. Conference Publications**As ASU Faculty:**

- (21) Moore, G. F.; Wadsworth, B. L.; Khusnutdinova, D.; Beiler, A. M.; Reyes Cruz, E. A.; Nanyangwe, S. **The Interplay Between Quantum Efficiency, Light Flux, and Turnover Frequency in Molecular-Modified Photocathodes.** *Abstract of Papers, 235th Electrochemical Society Meeting.* **2019**, Paper # I03-1638.
- (20) Moore, G. F.; Wadsworth, B. L.; Khusnutdinova, D.; Flores, M.; Beiler, A. M.; Reyes Cruz, E. A.; Zenkov, Y.; Urbine, J. **Homogeneous and Heterogenous Architectures for Electrocatalysis.** *Abstract of Papers, 235th Electrochemical Society Meeting.* **2019**, Paper # B08-0931.
- (19) Moore, G. F.; Wadsworth, B. L.; Khusnutdinova, D.; Beiler, A. M.; Reyes Cruz, E. A. **Bioinspired Hard-Soft Matter Interfaces for Applications in Electrocatalysis and Photoelectrosynthesis.** *Abstract of Papers, Materials Research Society Spring Meeting and Exhibit.* **2019**, Paper # ES05.04.01.
- (18) Moore, G. F.; Beiler, A. M.; Khusnutdinova, D.; Wadsworth, B. L. **Tetrapyrrolic Surface Coatings for Applications in Photoelectrosynthetic Fuel Production.** *Abstract of Papers, 233rd Electrochemical Society Meeting.* **2018**, Paper # B08-0972.
- (17) Mora S. J.; Odella, E.; Wadsworth, B. L.; Huynh, M. T.; Moore, G. F.; Hammes-Schiffer, S.; Gust, D.; Moore, T. A.; Moore, A. L. **Multiple Proton Transfers Coupled to a Single Electron Transfer in Benzimidazole-Phenol Derivatives.** *Abstract of Papers, 255th American Chemical Society (ACS) Meeting and Exposition.* **2018**, INOR-1163.
- (16) Beiler, A. M.; Khusnutdinova, D.; Wadsworth, B. L. Moore, G. F. **Bioinspired Surface Coatings for Solar Fuels Production.** *Abstract of Papers, Materials Research Society Spring Meeting and Exhibit.* Phoenix, AZ. **2018**, Paper # EN18.04.16.
- (15) Moore, G. F.; Beiler, A. M.; Khusnutdinova, D.; Wadsworth, B. L. **Bioinspired Polymeric Surface Coatings for Applications in Photoelectrosynthetic Fuel Production.** *Abstract of Papers, Materials Research Society Spring Meeting and Exhibit.* **2018**, Paper # EN18.09.04.
- (14) Khusnutdinova, D.; Beiler, A. M.; Wadsworth, B. L.; Moore, G. F. **Integrated Photocatalytic Materials for Fuel Production.** *Abstract of Papers, Materials Research Society Spring Meeting and Exhibit.* **2018**, Paper # EN18.04.16.
- (13) Wadsworth, B. L.; Khusnutdinova, D.; Beiler, A. M.; Moore, G. F. **Polymeric Interfaces for Renewable Fuel Production.** *Abstract of Papers, Materials Research Society Spring Meeting and Exhibit.* **2018**, Paper # EN18.15.06.
- (12) Beiler, A. M.; Khusnutdinova, D.; Wadsworth, B. L.; Moore, G. F. **Chemistry at the Interface: Hybrid Materials for Solar Fuel Production.** *Abstract of Papers, Materials Research Society Spring Meeting and Exhibit.* **2018**, Paper # NM03.12.04.
- (11) Moore, G. F.; Beiler, A. M.; Khusnutdinova, D.; Wadsworth, B. L. **Molecular Surface Coatings for Semiconductor Photoelectrochemistry and Photocatalysis.** *Abstract of Papers, 253rd ACS Meeting & Exposition.* **2017**, pp CATL-215.

- (10) Moore, G. F. **Chemistry at the Interface: Hybrid Materials for Solar Fuel Production.** *Abstract of Papers, Materials Research Society Spring Meeting and Exhibit.* **2016**, Paper # EE16.1.01.
- (9) Moore, G. F.; Khusnutdinova, D.; Beiler, A. M.; Jacob, S. I.; Skibo, E.; Echeverri, A. **Running on Sun: Bioinspired Approaches to Achieving Solar Fuels.** *Abstract of Papers, 250th ACS Meeting & Exposition.* **2015**, pp ENV-332.

Prior to Joining ASU Faculty:

- (8) Krawicz, A.; Moore, G. F. **GATR-FTIR Characterization of Cobaloxime Modified P-Type Gallium Phosphide Cathodes.** *Prepr. Pap.-Am. Chem. Soc., Div. Energy Fuels.* **2013**, 58 (2), 177-178.
- (7) Milot, R. L.; Moore, G. F.; Richter, C.; Martini, A. L.; Negre, C. A.; Batista, V. S.; Crabtree, R. H.; Brudvig, G. W.; Schmuttenmaer, C. A. **Using Time-Resolved THz Spectroscopy to Study Carrier Dynamics and Solar Energy Conversion in TiO₂ Nanotubes and Other Nanostructured Materials.** *Abstracts of Papers, 246th ACS National Meeting & Exposition.* **2013**, pp COLL-421.
- (6) Milot, R. L.; Richter, C.; Moore, G. F.; Crabtree, R. H.; Brudvig, G. W.; Schmuttenmaer, C. A. **Time Resolved THz Spectroscopy to Study Carrier Injection and Dynamics in TiO₂ and SnO₂.** *Abstracts of Papers, 243rd ACS National Meeting & Exposition.* **2012**, pp FUEL-466.
- (5) Schmuttenmaer, C. A.; Richter, C.; Milot, R. L.; Moore, G. F.; Brudvig, G. W. **Using Time Resolved THz Spectroscopy to Study Carrier Injection and Dynamics in TiO₂ and SnO₂.** *Abstracts of Papers, 242nd ACS National Meeting.* **2011**, pp COMP-69.
- (4) Moore, T. A.; Moore, A. L.; Gust, D.; Hambourger, M.; Moore, G. F.; Keirstead, A.; Gervaldo, M. **Artificial Photosynthesis: Combining Technology with Biology for Efficient Solar Energy Conversion.** *Abstracts of Papers, 235th ACS National Meeting.* **2008**; pp IEC-011.
- (3) Moore, A. L.; Moore, G. F.; Hambourger, M.; Kodis, G.; Gervaldo, M.; Liddell, P. A.; Gust, D.; Moore, T. A. **Bioinspired Energy Conversion Schemes.** *Abstracts of Papers, 233rd ACS National Meeting.* **2007**, pp INOR-088.
- (2) Moore, A. L.; Moore, T. A.; Gust, D.; Moore, G. F.; Kennis, J.; Hambourger, M.; Kodis, G.; Liddell, P. A. **Energy Conversion Involving Carotenoids Polyenes.** *Abstracts of Papers, 230th ACS National Meeting.* **2005**, pp PHYS-193.
- (1) Pessiki, P. J.; Moore, G. F. **Synthesis and Photochemical Properties of Tetraphenylporphyrins Covalently Attached to Lichen Acids.** *Abstracts of Papers, 228th ACS National Meeting.* **2004**, pp ORGN-490.

D. Media Coverage**As ASU Faculty:**

- (25) **ASU News: New theories and materials aid the transition to clean energy.**
<https://news.asu.edu/20211014-new-theories-and-materials-aid-transition-clean-energy>
- (24) **ASU News: New research advances clean energy solutions.**
<https://news.asu.edu/20210903-new-research-advances-clean-energy-solutions>
- (23) **ASU News: SMS Professor Leads in Energy Research.** <https://news.asu.edu/20210317-asu-researcher-gary-moore-exemplifies-scientific-leadership-through-energy-research>
- (22) **ASU Now: ASU professor receives Department of Energy Career Award.**
<https://asunow.asu.edu/20200807-asu-professor-receives-department-energy-career-award>
- (21) **ASU Now: ASU professor recognized nationally with Teacher-Scholar Award.**
<https://asunow.asu.edu/20200507-asu-professor-recognized-nationally-teacher-scholar-award>
- (20) **ASU Now: Science at the interface: Bioinspired materials reveal useful properties.**
<https://asunow.asu.edu/20200127-science-interface-bioinspired-materials-reveal-useful-properties>
- (19) **ASU Now: Study offers new insights for sun-gathering technologies.**
<https://news.asu.edu/20181107-arizona-impact-asu-scholars-students-embed-indigenous-communities-research-indian-country>
- (18) **ASU Now: ASU scholars, students embedded in indigenous communities with research in Indian Country.** <https://asunow.asu.edu/20181107-arizona-impact-asu-scholars-students-embed-indigenous-communities-research-indian-country>
- (17) **Biodesign Institute News: ASU research graces Cover of ACS Journal.**
<https://biodesign.asu.edu/news/asu-research-graces-cover-acj-journal>
- (16) **ASU Now: Safe, sustainable science earns ASU researcher praise.**
<https://asunow.asu.edu/20180412-safe-sustainable-science-earns-asu-researcher-praise>
- (15) **ASU Now: Assistant professor Gary Moore recognized nationally as exceptional mentor.**
<https://asunow.asu.edu/20180213-asu-associate-professor-gary-moore-recognized-exceptional-mentor>
- (14) **ARCS News: Three Doctoral Advisors Recognized as Exceptional Mentors.**
<https://biodesign.asu.edu/news/asu-biodesign-assistant-professor-gary-moore-recognized-nationally-exceptional-mentor>

- (13) **ASU Now: Junior faculty in ASU's School of Molecular Sciences receive recognition.**
<https://asunow.asu.edu/20170315-junior-faculty-asus-school-molecular-sciences-receive-recognition>
- (12) **Biodesign Institute News: Gary Moore receives prestigious NSF CAREER Award.**
<https://biodesign.asu.edu/news/gary-moore-receives-prestigious-nsf-career-award>
- (11) **ASU Now: ASU Researcher Focuses Energy on Future of Science.**
<https://asunow.asu.edu/20170207-discoveries-asu-researcher-focuses-energy-future-science>
- (10) **Science House: U.S. Researchers Support Solar Fuels Innovation Act.**
<https://science.house.gov/legislation/bills/hr-solar-fuels-innovation-act>
- (9) **Biodesign Institute News: Energy innovation: Tapping the power of the Sun.**
<https://biodesign.asu.edu/news/energy-innovation-tapping-power-sun>
- (8) **ARCS News: ARCS Foundation Alumni Joins Arizona State Faculty.**
<https://phoenix.arcsfoundation.org/arcs-foundation-phoenix-alum-dr-gary-moore-joins-arizona-state-faculty>

Prior to Joining ASU Faculty:

- (7) **Chemistry World: Running on Sun.** <https://www.chemistryworld.com/opinion/running-on-sun/5463.article>
- (6) **The Daily Californian: Berkeley Lab Researchers Design Bionic Leaf.**
<http://www.dailycal.org/2014/03/11/berkeley-lab-researchers-designing-bionic-leaf/>
- (5) **Solar Novus Today: Bionic Leaf Photocathode Absorbs Sunlight, Produces Hydrogen Fuel.** http://www.solarnovus.com/bionic-leaf-photocathode-absorbs-sunlight-produces-hydrogen-fuel_N7557.html
- (4) **Berkeley Lab News Center: Promising News for Solar Fuels.**
<http://newscenter.lbl.gov/2014/03/07/promising-news-for-solar-fuels/>
- (3) **Today at Berkeley Lab: PBD Researchers Give Photosynthesis Talks at Swedish Renewable Energy Meeting.** <http://today.lbl.gov/2014/03/28/pbd-researchers-give-photosynthesis-talks-at-swedish-renewable-energy-meeting/>
- (2) **Berkeley Lab News Center: Hydrogen Fuel from Sunlight.**
<http://newscenter.lbl.gov/2013/08/29/hydrogen-fuel-from-sunlight/>
- (1) **Yale News: Team Harnessing Power of Photosynthesis to Make Green Fuels.**
<http://news.yale.edu/2010/05/07/team-harnessing-power-photosynthesis-make-green-fuel>

Presentations

A. Invited Conference Presentations

As ASU Faculty (international conferences in italics):

- (34) *Porphyrinoids for Applications in Electrocatalysis and Photoelectrosynthesis. Gary F. Moore. 11th International Conference on Porphyrins and Phthalocyanines. Virtual Meeting, June 28-July 3, 2021 (Invited Speaker)*
- (33) *Bioinspired Materials for Sustainable Chemistry. Gary F. Moore. N.I.C.E. Conference 2020 Nature Inspires Creativity Engineers. Nice, France. October 12-14, 2020 (Keynote Speaker)*
- (32) Bridging Heterogeneous, Homogeneous, and Enzymatic Catalysis to Model Kinetics Involving Complex Architectures and Interfaces. Gary F. Moore. 2nd *Frontiers in Photochemistry Conference. Nassau, Bahamas. February 22-25, 2020 (Invited Speaker)*
- (31) *Nanoscale Architectures for Applications in Electrocatalysis and Photoelectrosynthesis. Gary F. Moore. The Sixth International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems. Island of Corfu (Kerkyra), Greece. June 30-July 3, 2019 (Invited Lecturer)*
- (30) *The Interplay between Quantum Efficiency, Light Flux, and Turnover Frequency in Molecular-Modified Photocathodes. Gary F. Moore, Brian L. Wadsworth, Anna M. Beiler, Diana Khusnutdinova, Edgar A. Reyes Cruz, Sylvia K. Nanyangwe 235th Electrochemical Society Meeting. Dallas, TX. May 26-30, 2019 (Invited Speaker)*
- (29) *Homogeneous and Heterogeneous Porphyrin Architectures for Electrocatalysis. Gary F. Moore, Brian L. Wadsworth, Diana Khusnutdinova, Marco Flores, Anna M. Beiler, Edgar A. Reyes Cruz, Yegor Zenkov, Jennifer Urbine. 235th Electrochemical Society Meeting. Dallas, TX. May 26-30, 2019 (Invited Speaker)*
- (28) *Bioinspired Hard-soft Matter Interfaces for Applications in Cooperative Electrocatalysis and Photoelectrosynthesis. Gary F. Moore. 2019 Materials Research Society Spring Meeting and Exhibit. Phoenix, AZ. April 22-26, 2019 (Hot Topic presentation)*
- (27) *Nature Inspired Surface Coatings for Applications in Photoelectrosynthesis. Gary F. Moore. N.I.C.E. Conference 2018 Nature Inspires Creativity Engineers. Nice, France. October 14-17, 2018 (Invited Speaker)*
- (26) *Molecular Coatings for Applications in Electrocatalysis and Photoelectrosynthesis. Gary F. Moore. Electron Donor-Acceptor Interactions Gordon Research Conference. Salve Regina, Newport, RI. August 5-10, 2018 (Selected Short Talk)*
- (25) *Porphyrim Modified Surfaces. Gary F. Moore. 10th International Conference on Porphyrins and Phthalocyanines. Munich, Germany. July 1-6, 2018 (Invited Speaker)*
- (24) *Molecular Surface Coatings for Applications in Solar Fuels and Artificial Photosynthesis. Gary F. Moore. First European Congress on Photosynthesis Research, EPS-1. Uppsala, Sweden. June 25-28, 2018 (Invited Speaker)*

- (23) *Tetrapyrrolic Surface Coatings for Applications in Photoelectrosynthetic Fuel Production.* Gary F. Moore. **233rd Electrochemical Society Meeting.** Seattle, WA. May 13-17, 2018 (Invited Lecturer)
- (22) *Molecular Surface Coatings for Applications in Artificial Photosynthesis.* Gary F. Moore. **3rd Molecules and Materials for Artificial Photosynthesis Conference.** Cancún, Mexico. March 2-5, 2018 (Invited Lecturer)
- (21) *Bioinspired Polymeric Surface Coatings for Applications in Photoelectrosynthetic Fuel Production* Gary F. Moore. **2018 Materials Research Society Spring Meeting and Exhibit.** Phoenix, AZ. April 2-6, 2018 (Invited Lecturer)
- (20) *Bioinspired Surface Coatings for Applications in Artificial Photosynthesis and Solar Fuels.* Gary F. Moore. **27th Western Photosynthesis Conference.** Tucson, AZ. January 5-8, 2018 (Invited Speaker)
- (19) *Photochemical Energy Conversion at Molecular Modified Surfaces.* Gary F. Moore. **27th Winter Inter-American Photochemical Society Conference.** Sarasota, FL. January 2-5, 2018 (Invited Speaker)
- (18) *Polymeric Surface Coatings for Semiconductor Photoelectrochemical Fuel Production.* Gary F. Moore. **Photochemistry Gordon Research Conference.** Bates College, Lewiston, ME. July 23-28, 2017 (Selected Short Talk)
- (17) *Molecular Surface Coatings for Applications in Catalysis and Solar Fuels.* Gary F. Moore. **2nd International Solar Fuels Conference.** San Diego, CA. July 6-10, 2017 (Selected Flash Presentation)
- (16) *Bioinspired Surface Coatings for Solar Fuel Production.* Gary F. Moore. **Telluride Science Research Center Workshop: Solar Solutions to Energy and Environmental Problems.** Telluride, CO. June 26-30, 2017 (Invited Speaker)
- (15) *Molecular Coatings for Semiconductor Photoelectrochemistry and Photocatalysis.* Gary F. Moore. **253rd ACS National Meeting.** San Francisco, CA. April 2-6, 2017 (Invited Lecturer)
- (14) *Molecular-Modified Semiconductors for Artificial Photosynthesis.* Gary F. Moore. **26th Western Photosynthesis Conference.** San Francisco, CA. January 5-8, 2017 (Invited Speaker)
- (13) *Hybrid Nanomaterials for Solar Fuel Production.* Gary F. Moore. **The Fifth International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems.** Porto Heli, Peloponnese, Greece. June 26-30, 2016 (Invited Lecturer)
- (12) *Chemistry at the Interface: Hybrid Materials for Solar Fuel Production.* Gary F. Moore. **2016 Materials Research Society Spring Meeting and Exhibit.** Phoenix, AZ. March 28-April 1, 2016 (Invited Lecturer)
- (11) *Bioinspired Approaches to Achieving Solar Fuels.* Gary F. Moore. **250th ACS Meeting & Exposition.** Boston, MA. August 16-20, 2015 (Invited Speaker and Best Paper Award)

(10) Hybrid Photocathodes for Solar Powered H₂ Production and CO₂ Reduction. Gary F. Moore. **Telluride Science Research Center Workshop: Solar Solutions to Energy and Environmental Problems**. Telluride, CO. August 3-7, 2015 (**Invited Speaker**)

(9) *Controlling Catalysis at Interfaces*. Gary F. Moore. **Royal Society Meeting 2014**. The Royal Society at Chicheley Hall, Buckinghamshire, England. July 8-10, 2014 (**Invited Speaker**)

Prior to Joining ASU Faculty:

(8) *Coupling of Molecular Catalysts to Surfaces*. Gary F. Moore. **The Umeå Renewable Energy Meeting (UREM) 2014**. Chemical Biological Center (KBC), Umeå University, Umeå, Sweden. March 17-19, 2014 (**Invited Speaker**)

(7) *Modular Approaches to Achieving Artificial Photosynthesis*. Gary F. Moore. **23rd Western Photosynthesis Conference**. Pacific Grove, CA. January 2-5, 2014 (**Invited Speaker**)

(6) *GATR-FTIR Characterization of Cobaloxime-Modified P-Type Gallium Phosphide Cathodes* Gary F. Moore. **246th ACS National Meeting & Exposition**. Indianapolis, IN. September 8-12, 2013 (**Invited Speaker**)

(5) *Molecular and Nanoscale Interfaces for Artificial Photosynthesis*. Gary F. Moore. **22nd Western Photosynthesis Conference**. Pacific Grove, CA. January 3-6, 2013 (**Invited Speaker**)

(4) *Molecular and Nanoscale Interfaces for a Global Scale Challenge*. Gary F. Moore. **16th International Congress of Photosynthesis**. St. Louis, MO. August 11-16, 2013 (**Invited Speaker**)

(3) *Taking Inspiration from Biology for Technology*. Gary F. Moore. **19th International Conference on Photochemical Conversion and Storage of Solar Energy**. California Institute of Technology, Pasadena, CA. July 29-August 3, 2012 (**Invited Speaker**)

(2) *Make Like a Leaf*. Gary F. Moore. **2010 Pauling Award Symposium Kick-off**. TESC, Olympia, WA. November 4, 2010 (**Invited Seminar Speaker**)

(1) *A Visible Light Water-Splitting Photoanode*. Gary F. Moore. **Yale Climate and Energy Congress Scholars Forum**. New Haven, CT. October 12, 2010 (**Invited Speaker**)

B. Invited Presentations at Academic Institutions and National Laboratories

As ASU Faculty:

(20) Molecular Materials for Electrocatalysis and Solar Photochemistry. **Department of Chemistry Seminar Series at University of New Hampshire**. Durham, NH. October 12, 2021

(19) Molecular Surface Coatings for Applications in Electrocatalysis and Photoelectrosynthesis. **Department of Chemistry Seminar Series at Yale University**. New Haven, CT. April 7, 2020

- (18) Heterogeneous and Homogeneous Architectures for Applications in Electrocatalysis and Photoelectrosynthesis. **Department of Chemistry Seminar Series at Rice University**. Houston, TX. January 30, 2019
- (17) Heterogeneous and Homogeneous Architectures for Applications in Electrocatalysis and Photoelectrosynthesis. **Department of Chemistry Seminar Series at Bowling Green State University**. Bowling Green, OH. December 5, 2018
- (16) Heterogeneous and Homogeneous Architectures for Applications in Electrocatalysis and Photoelectrosynthesis. **Inorganic Chemistry Seminar Series at Ohio State University**. Columbus, OH. December 4, 2018
- (15) Heterogeneous and Homogeneous Architectures for Applications in Electrocatalysis and Photoelectrosynthesis. **Department of Chemistry Seminar Series at Binghamton University**. Binghamton, NY. November 16, 2018
- (14) Heterogeneous and Homogeneous Architectures for Applications in Electrocatalysis and Photoelectrosynthesis. **Department of Chemistry Seminar Series at Université Paris–Sud**. Orsay, France. September 25, 2018
- (13) Molecular Coatings for Applications in Electrocatalysis and Photoelectrosynthesis. Gary F. Moore. **Center for Nanotechnology and Nanomaterials Seminar at the Walter Schottky Institute Technical University Munich**. Munich, Germany. July 3, 2018
- (12) Hybrid Nanomaterials for Solar Fuel Production. Gary F. Moore. **Department of Physics Nanoscience Seminar Series at Arizona State University**. Tempe, AZ. October 17, 2016
- (11) Hybrid Material Interfaces for Solar Energy Transduction. Gary F. Moore. **Department of Chemistry & Chemical Biology Seminar Series at Rensselaer Polytechnic Institute**. Troy, NY. October 4, 2015 (**Student-Invited Lecturer Award**)
- (10) Running on Sun, All Night Long. Gary F. Moore. **Department of Chemistry Seminar Series at Portland State University**, Portland, OR. May 15, 2015 (**Student-Invited Lecturer**)

Prior to Joining ASU Faculty:

- (9) Hybrid Photocathodes for Solar Fuels Production. **Yale-National University of Singapore**. Singapore, Singapore. April 7, 2014
- (8) Hybrid Photocathodes for Solar Fuels Production. **Pacific Northwest National Laboratory**. Richland, WA. March 28, 2014
- (7) Molecular and Nanoscale Approaches to Solar Energy Conversion. **University of Pennsylvania Department of Chemistry Seminar**. Philadelphia, PA. January 29, 2014
- (6) Molecular and Nanoscale Approaches to Solar Energy Conversion. **Arizona State University Chemistry and Biochemistry Seminar**. Tempe, AZ. January 16, 2014
- (5) Molecular and Nanoscale Approaches to Solar Energy Conversion. **University of California Santa Cruz Department of Chemistry Seminar**. Santa Cruz, CA. January 13, 2014

- (4) Molecular and Nanoscale Approaches to Solar Energy Conversion. **Yale University Department of Chemistry Seminar**. New Haven, CT. January 8, 2014
- (3) Molecular and Nanoscale Approaches to Solar Energy Conversion. **University of Washington Department of Chemistry Seminar Series**. Seattle, WA. December 3, 2013
- (2) Make Like a Leaf. **Berkeley Lab Physical Bioscience Seminar Series**. Berkeley, CA. November 15, 2012
- (1) Biology and Technology for the Sustainable Production and Use of Fuels. **National University of Río Cuarto Chemistry Seminar**. Río Cuarto, Córdoba, Argentina. March 20, 2009

C. Invited Presentations at Corporate Institutions

Prior to Joining ASU Faculty:

- (2) *Recent Advancements in Artificial Photosynthesis and Solar Fuels*. **Exxon Mobil Corporation**. Annandale, NJ. December 6, 2012 (**Invited Speaker and Consultant**)
- (1) *Energy Transduction in Biology and Technology*. **Procter and Gamble**. Cincinnati, OH. June 10, 2010

D. Outreach / Mentoring Workshops and Presentations

As ASU Faculty:

- (8) **Fifteenth Annual Arizona Western Alliance to Expand Student Opportunities (WAESO) Student Research Conference**. Panel session on “Why you should consider Doctoral education and the Professorate” Tempe, AZ. March 19, 2021 (**Invited Speaker and Panel Discussion Participant**)
- (7) **Fourteenth Annual Arizona Western Alliance to Expand Student Opportunities (WAESO) Student Research Conference**. Panel session on “Why you should consider Doctoral education and the Professorate” Tempe, AZ. March 3, 2020 (**Invited Speaker and Panel Discussion Participant**)
- (6) **Doing Research in Indian County**. Panel session on sustainability with panelist: Dr. Jamie Ritchey, *Director of Tribal Epidemiology*; Violet Mitchell-Enos, *Director, HHS, SRP-MIC*; Gary F. Moore, *School of Molecular Sciences*; and Dr. Dave Wilson, *Tribal Health Research Office, NIH*. Tempe, AZ. October 27, 2017 (**Discussion Moderator and Session Chair**)

Prior to Joining ASU Faculty:

- (5) **Switch: Discover the Future of Energy (Berkeley Lab Film Screening)**. Gary F. Moore, Nitash Balsara, Rich Muller. Berkeley, CA. December 12, 2012 (**Invited Panel Discussion Participant**)
- (4) **Grand Challenges in Artificial Photosynthesis Panel Discussion**. Gary F. Moore, Gary W. Brudvig, John Golbeck, Ruchira Chatterjee. Rensselaer Polytechnic Institute, Troy, NY. November 4-5, 2011 (**Invited Panelist**)

- (3) A Panel on Emerging Energy Technologies. **Yale Climate and Energy Institute 2nd Annual Conference Kick-off**. Yale University, NewHaven, CT. March 30, 2011 (**Invited Panel Discussion Moderator**)
- (2) A Panel on Technology and our Emerging Energy Crisis. **Yale Climate and Energy Institute 2nd Annual Pre-Conference Talks**. Yale University, New Haven, CT. March 23, 2011 (**Invited Panel Discussion Moderator**)
- (1) Postdoctoral Mentoring. **MGE@MSA Second Annual Faculty Postdoctoral Mentoring Institute**. Tempe, AZ. January 28, 2010 (**Invited Speaker**)

E. Research Workshops

As ASU Faculty:

- (11) **2nd Annual Advanced Water Splitting Technology Pathways Benchmarking and Protocols Workshop**. Tempe, AZ. October 28-30, 2019 (**Invited Participant**)
- (10) **Cyclic Voltammetry International School (CVIS)**. Paris, France. April 8-12, 2019 (**One of Ten Selected Participants**)
- (9) **HydroGEN Advanced Water Splitting Technology Pathways Benchmarking and Protocols Workshop**. Tempe, AZ. October 24-25, 2018 (**Invited Participant**)
- (8) **U.S. Department of Energy Bioenergy Technology Office Listening Day**. San Diego, CA. July 8, 2017 (**Invited Participant**)
- (7) **Telluride Science Research Center Workshop: Solar Solutions to Energy and Environmental Problems**. Telluride, CO. June 26-30, 2017 (**Invited Participant**)
- (6) **Faraday Discussion: Artificial Photosynthesis**. Kyoto, Japan. February 28-March 2, 2017 (**Accepted Participant**)
- (5) **SBIR/SBTR Defense Innovation Summit: Technology Acceleration Challenges**. Austin, TX. November 29-December 1, 2016 (**Accepted Participant**)
- (4) **Lorentz Center Workshop: Pathways to Solar Hydrogen Technologies**. Leiden, Netherlands. June 13-16, 2016 (**Invited Participant**)
- (3) **National Science Foundation Chemistry Early Career Award Workshop**. Arlington, VA. March 10-11, 2016 (**Invited Participant**)
- (2) **Telluride Science Research Center Workshop: Solar Solutions to Energy and Environmental Problems**. Telluride, CO. August 3-7, 2015 (**Invited Participant**)
- (1) **Scialog Research Corporation for Scientific Advancement Conference and Workshop on Solar Energy Conversion**. Tucson, AZ. October 14-17, 2016 (**Invited Participant**)

F. Contributed Oral and Poster Presentations**As ASU Faculty:**

- (45) Homogeneous and Heterogenous Architectures for Applications in Electrocatalysis and Photoelectrosynthesis. Brian L. Wadsworth, Diana Khusnutdinova, Edgar A. Reyes Cruz, Nghi Nguyen, Daiki Nishiori, Gary F. Moore. **2019 Photosynthesis Gordon Research Conference**. Newry, ME. July 21-26, 2019 (**Poster**)
- (44) Homogeneous and Heterogenous Architectures for Applications in Electrocatalysis and Photoelectrosynthesis. Brian L. Wadsworth, Diana Khusnutdinova, Anna M. Beiler, Edgar A. Reyes Cruz, Gary F. Moore. **2019 Photochemistry Gordon Research Conference**. Easton, MA. July 14-19, 2019 (**Poster**)
- (43) Molecular Coatings for Applications in Electrocatalysis and Photoelectrosynthesis. Brian L. Wadsworth, Diana Khusnutdinova, Anna M. Beiler, Edgar A. Reyes Cruz, Jennifer Urbine, Gary F. Moore. **28th Winter Inter-American Photochemical Society Conference**. Sarasota, FL. January 2-5, 2019 (**Poster**)
- (42) Molecular Coatings for Applications in Electrocatalysis and Photoelectrosynthesis. Brian L. Wadsworth, Diana Khusnutdinova, Anna M. Beiler, Edgar A. Reyes Cruz, Gary F. Moore. **Gerischer Electrochemistry Today 2018 Symposium**. University of Colorado Boulder, Boulder, CO. August 5-10, 2018 (**Poster**)
- (41) Molecular Coatings for Applications in Electrocatalysis and Photoelectrosynthesis. Brian L. Wadsworth, Diana Khusnutdinova, Anna M. Beiler, Edgar A. Reyes Cruz, Gary F. Moore. **Electron Donor-Acceptor Interactions Gordon Research Conference**. Salve Regina, Newport, RI. August 14-16, 2018 (**Poster**)
- (40) Molecular Coatings for Applications in Electrocatalysis and Photoelectrosynthesis. Brian L. Wadsworth, Diana Khusnutdinova, Anna M. Beiler, Edgar A. Reyes Cruz, Gary F. Moore. **Renewable Energy: Solar Fuels Gordon Research Conference**. Ventura Beach Marriott, Ventura, CA. January 28-February 2, 2018 (**Poster**)
- (39) Polymeric Surface Coatings for Semiconductor Photoelectrochemical Fuel Production. Anna M. Beiler, Diana Khusnutdinova, Brian L. Wadsworth, Gary F. Moore. **Photochemistry Gordon Research Conference**. Bates College, Lewiston, ME. July 23-28, 2017 (**Poster**)
- (38) SUNCROPS: Solar-Fuels Using Nanaoscale Catalysts Reacting On Polymer Modified Semiconductors. Diana Khusnutdinova, Anna M. Beiler, Brian L. Wadsworth, Samuel I. Jacob, Gary F. Moore. **Electron Donor-Acceptor Interactions Gordon Research Conference**. Salve Regina University, Newport, RI. February 28-March 4, 2016 (**Poster**)
- (37) Chemistry at the Interface Molecular Modified Semiconductors for Solar Fuel Production and Attachment of Catalytic Nanomaterial to Semiconductor Surfaces. Diana Khusnutdinova, Anna M. Beiler, Samuel I. Jacob, Gary F. Moore. **Renewable Energy: Solar Fuels Gordon Research Symposium**. Lucca (Barga), Italy. May 13-18, 2016 (**Poster**)

- (36) Molecular-Modified Semiconductors for Photochemical CO₂ Reduction. Diana Khusnutdinova, Anna M. Beiler, Samuel I. Jacob, Gary F. Moore. **Photochemistry Gordon Research Conference**. Stonehill College, Easton, MA. July 19-24, 2015 (**Poster**)
- (35) Molecular-Modified Semiconductors for Artificial Photosynthesis. Diana Khusnutdinova, Anna M. Beiler, Samuel I. Jacob Gary F. Moore. **Photosynthesis Gordon Research Conference**. Bentley University, Waltham, MA. June 28-July 3, 2015 (**Poster**)
- (34) Direct Electron Transfer via Unnatural Amino Acids in Plant-type [2Fe-2S] Ferredoxin. Anna M. Beiler, Michael Vaughn, Kathryn Enderle, Thomas A. Moore, Gary F. Moore. **24th Western Photosynthesis Conference**. Pacific Grove, CA. January 8-11, 2015 (**Poster**)
- (33) Molecular Scale Approaches to a Global Scale Challenge. Gary F. Moore. **Photosynthesis Gordon Research Conference**. Mount Snow Resort, West Dove, VT. August 10-15, 2014 (**Oral and Poster**)
- (32) Controlling Solar Fuels Catalysis at the Interface using Molecular Design. Diana Cedeno, Alexandra Krawicz, Gary F. Moore. **Electron Donor-Acceptor Interactions Gordon Research Conference**. Salve Regina University, Newport, RI. August 3-8, 2014 (**Poster**)
- (31) Using Molecular Design to Control the Performance of Hydrogen-Producing Polymer-Brush-Modified Photocathodes. Diana Cedeno, Alexandra Krawicz, Peter Doak, Min Yu, Jeffery B. Neaton, Gary F. Moore. **Renewable Energy: Solar Fuels Gordon Research Conference**. Four Points Sheraton, Ventura, CA. January 19-24, 2014 (**Poster**)

Prior to Joining ASU Faculty:

- (30) Energetics and Efficiency Evaluation of a Cobaloxime-Modified Semiconductor. Alexandra Krawicz, Gary F. Moore. **Photochemistry Gordon Research Conference**. Easton, MA. July 14-19, 2013 (**Poster**)
- (29) Developing New Photocathode Materials. Gary F. Moore, Ian D. Sharp. **Electron Donor-Acceptor Interactions Gordon Research Conference**. Salve Regina University, Newport, RI. August 5-10, 2012 (**Poster**)
- (28) Hydrogenase Active Site Mimics Immobilized on p-Type Silicon. Gary F. Moore, Ian D. Sharp. **Photosynthesis Gordon Research Conference**. Davidson College, Davidson, NC. July 8-13, 2012 (**Poster**)
- (27) Covalent Attachment of Catalytic Nanomaterial to Semiconductor Surfaces. Gary F. Moore, Ian D. Sharp. **Renewable Energy: Solar Fuels Gordon Research Symposium**. Lucca (Barga), Italy. May 13-18, 2012 (**Poster**)
- (26) Hybrid Photoanodes Materials for Visible Light Induced Water Oxidation. Gary F. Moore, James D. Blakemore, Rebecca L. Milot, Hee-eun Song, Lawrence Cai, Charles A. Schmuttenmaer, Robert H. Crabtree, Gary W. Brudvig. **Photosynthesis Gordon Research Conference**. Davidson College, Davidson, NC. June 12-17, 2011 (**Poster**)
- (25) High Potential Photoanodes for Applications in Photoelectrochemical Cells. Gary F. Moore, James D. Blakemore, Hee-eun Song, Rebecca L. Milot, Victor S. Batista, Charles A.

- Schmuttenmaer, Robert H. Crabtree, Gary W. Brudvig. **Renewable Energy: Solar Fuels Gordon Research Conference**. Ventura Beach Marriott, Ventura, CA. January 16-21, 2011 (Poster)
- (24) High Potential Photoanodes for Applications in Photoelectrochemical Cells. Gary F. Moore, James D. Blakemore, Hee-eun Song, Rebeca L. Milot, Victor S. Batista, Charles A. Schmuttenmaer, Robert H. Crabtree, Gary W. Brudvig. **Renewable Energy: Solar Fuels Gordon Research Symposium**. Four Points Sheraton, Ventura, CA. January 15-16, 2011 (Oral)
- (23) Bioinspired Approches to Solar Fuels. Gary F. Moore, James D. Blakemore, Hee-eun Song, Rebeca L. Milot, Victor S. Batista, Charles A. Schmuttenmaer, Robert H. Crabtree, Gary W. Brudvig. **20th Western Photosynthesis Conference**. Pacific Grove, CA. January 6-9, 2011 (Oral and Poster)
- (22) High Potential Photoanodes. Gary F. Moore, James D. Blakemore, Hee-eun Song, Rebecca L. Milot, Victor S. Batista, Charles A. Schmuttenmaer, Robert H. Crabtree, Gary W. Brudvig. **Zing Solar Fuels / Photochemistry Conference**. Cancún, Mexico. December 1-2, 2010 (Oral)
- (21) Thermodynamics of Electron Transfer in High Potential Photoanodes. Gary F. Moore, James D. Blakemore, Hee-eun Song, Rebecca L. Milot, Victor S. Batista, Charles A. Schmuttenmaer, Robert H. Crabtree, Gary W. Brudvig. **Electron Donor-Acceptor Interactions Gordon Research Conference**. Salve Regina University, Newport, RI. August 8-13, 2010 (Poster)
- (20) Development of High Potential Photoanodes. Gary F. Moore, James D. Blakemore, Hee-eun Song, Rebecca L. Milot, Victor S. Batista, Charles A. Schmuttenmaer, Robert H. Crabtree, Gary W. Brudvig. **27th Eastern Regional Photosynthesis Conference**. Woods Hall, MA. April 16-18, 2010 (Poster)
- (19) Tetrapyrrolic-carboxylate and Acetylacetonate Linkers for Roboust Functionalization of TiO₂ and SnO₂ in Dye-Sensitized Solar Cells. Gary F. Moore, James D. Blakemore, Hee-eun Song, Rebecca L. Milot, Victor S. Batista, Charles A. Schmuttenmaer, Robert H. Crabtree, Gary W. Brudvig. **19th Western Photosynthesis Conference and Arnon Centennial Symposium**. Pacific Grove, CA. January 7-10, 2010 (Poster)
- (18) Bioinspired Mediators for Solar Energy Transduction. Gary F. Moore, Michael Hamburger, Gerdenis Kodis, Weston Michl, Devens Gust, Thomas A. Moore, Ana L. Moore. **Photosynthesis Gordon Research Conference**. Bryant University Smithfield, RI. June 28-July 3, 2009 (Poster)
- (17) Bioinspired Mediators: "Probing the Effects of Nanostructure on Redox Behavior". Gary F. Moore, Michael Hamburger, Weston Michl, Devens Gust, Thomas A. Moore, Ana L. Moore. **International Center for Materials US-Argentina Workshop on Nanomaterials**. Hotel Amancay, Bariloche, Argentina. March 15-17, 2009 (Poster)

- (16) Understanding the Role of TyrZ-His190 Pair in Water Oxidation. Gary F. Moore, Michael Hambourger, Weston Michl, Devens Gust, Thomas A. Moore, Ana L. Moore. Renewable Energy: **Solar Fuels Gordon Research Conference**. Four Points Sheraton / Holiday Inn Express, Ventura, CA. February 1-6, 2009 (**Oral and Poster**)
- (15) Understanding the Role of TyrZ-His190 Pair in Water Oxidation. Gary F. Moore, Michael Hambourger, Weston Michl, Devens Gust, Thomas A. Moore, Ana L. Moore. **Renewable Energy: Solar Fuels Gordon Research Symposium**. Ventura Beach Marriott, Ventura, CA. January 31-February 1, 2009 (**Poster**)
- (14) Proton Coupled Electron Transfer in Bioinspired Mediators. Gary F. Moore, Michael Hambourger, Weston Michl, Devens Gust, Thomas A. Moore, Ana L. Moore. **18th Western Photosynthesis Conference**. Pacific Grove, CA. January 8-11, 2009 (**Oral and Poster**)
- (13) Electron Transfer in a Bioinspired Hybrid System. Gary F. Moore, Michael Hambourger, Miguel Gervaldo, Oleg G. Poluektov, Tijana Rajh, Devens Gust, Thomas A. Moore, Ana L. Moore. **Electron-Donor Acceptor Interactions Gordon Research Conference**. Salve Regina University, Newport, RI. August 3-8, 2008 (**Oral and Poster**)
- (12) A Bioinspired Construct that Mimics the Proton Coupled Electron Transfer between P680⁺ and Tyrosine Z in Photosystem II. Gary F. Moore, Michael Hambourger, Miguel Gervaldo, Oleg G. Poluektov, Tijana Rajh, Devens Gust, Thomas A. Moore, Ana L. Moore. **Photosynthesis Gordon Research Conference**. Mont Holyoke College, South Hadley, MA. June 22-27, 2008 (**Oral and Poster**)
- (11) A Bioinspired Construct that Mimics the Proton Coupled Electron Transfer Between P680⁺⁺ and Tyrosine Z in Photosystem II. Gary F. Moore, Michael Hambourger, Miguel Gervaldo, Oleg G. Poluektov, Tijana Rajh, Devens Gust, Thomas A. Moore, Ana L. Moore. **Photosynthesis and Bioenergy Gordon Research Symposium**. Mont Holyoke College, South Hadley, MA. June 21-22, 2008 (**Oral and Poster**)
- (10) Bioinspired Constructs that Mimic the Electron Transfer Between P680⁺⁺ and Tyrosine Z in Photosystem II. Gary F. Moore, Michael Hambourger, Gerdenis Kodis, Amy Keirstead, Miguel Gervaldo, Devens Gust, Ana L. Moore, Thomas A. Moore. **17th Western Photosynthesis Conference**. Pacific Grove, CA. January 3-6, 2008 (**Poster**)
- (9) Donor-side Mimics of the Electron Transfer in PSII. Gary F. Moore, Michael Hambourger, Gerdenis Kodis, Miguel Gervaldo, Devens Gust, Thomas A. Moore, Ana L. Moore. **Renewable Energy: Solar Fuels Gordon Research Conference**. Ventura Beach Marriott, Ventura, CA. January 21-26, 2007 (**Poster**)
- (8) Charge Separation and Energy Transfer in a Caroteno-C₆₀ dyad: Photoinduced Electron Transfer from the Carotenoid Excited States. Gary F. Moore, Rudi Berera, Ivo H. M. van Stokkum, Gerdenis Kodis, Paul A. Liddell, Miguel Gervaldo, Rienk van Grondelle, John T. M. Kennis, Devens Gust, Thomas A. Moore, Ana L. Moore. **16th Western Photosynthesis Conference**. Pacific Grove, CA. January 4-7, 2007 (**Poster**)

- (7) Biomimetic Modeling of the Electron Transfer between P680 and Tyrosine Z in PS II. Gary F. Moore, Michael Hamburger, Gerdenis Kodis, Miguel Gervaldo, Devens Gust, Thomas A. Moore, Ana L. Moore. **Electron Donor-Acceptor Interactions Gordon Research Conference**. Salve Regina University. Newport, RI. August 13-18, 2006 (**Poster**)
- (6) Synthesis and Characterization of Biomimetic Models for the Electron Transfer Between P680 and Tyrosine Z. Gary F. Moore, Michael Hamburger, Gerdenis Kodis, Devens Gust, Thomas A. Moore, Ana L. Moore. **15th Western Photosynthesis Conference**. Pacific Grove, CA. January 5-8, 2006 (**Oral and Poster**)
- (5) Synthesis and Photochemical Properties of Lichen Acids Porphyrin Dyads. Gary F. Moore, Peter J. Pessiki. **American Chemical Society National Meeting**, Philadelphia, PA. August 22-26, 2004 (**Poster**)
- (4) Lichen Acid Porphyrin Dyads. Gary F. Moore, Peter J. Pessiki. **6th Annual UW Undergraduate Research Symposium**, University of Washington, Seattle, WA. May 16, 2003 (**Oral and Poster**)
- (3) Synthesis and Characterization of Metal Chelating Porphyrins. Gary F. Moore, Peter J. Pessiki. **American Chemical Society Student Affiliate Symposium of the Puget Sound Section of the American Chemical Society**, Seattle University, Seattle, WA. May 10, 2003 (**Oral and Poster**)
- (2) Metal Chelating Porphyrins: Strategies and Progress. Gary F. Moore, Peter J. Pessiki. **American Chemical Society 57th Northwest Regional Meeting**, Spokane, WA. June 20-21, 2002 (**Poster**)
- (1) Lichen Acids Covalently Attached to Porphyrins. Gary F. Moore, Lalita M. Calabria, Peter J. Pessiki. **American Chemical Society Undergraduate Research Symposium**, University of Washington, Seattle, WA. May 4, 2002 (**Oral and Poster**)

PhD Dissertations of Mentees

- (3) Hybrid Materials and Interfaces for Artificial Photosynthetic Assemblies by Brian L. Wadsworth (2020 / a dissertation completed in partial fulfillment for the degree doctor of Philosophy)

An electronic copy is available at:

<https://search.proquest.com/openview/e307ae8b90ac7ac92c14a85a07a7f14e/1?pq-origsite=gscholar&cbl=51922&diss=y>

- (2) Electrocatalytic and Photoelectrosynthetic Hydrogen Production using Metalloporphyrins and Molecular-modified Gallium Phosphide Photocathodes by Diana Khusnutdinova (2019 / a dissertation completed in partial fulfillment for the degree doctor of Philosophy)

An electronic copy is available at:

<https://search.proquest.com/openview/ba3f4bed7bfa278a4ede470c1222c754/1.pdf?pq-origsite=gscholar&cbl=18750&diss=y>

- (1) Structural and Photoelectrochemical Characterization of Gallium Phosphide Semiconductors Modified with Molecular Cobalt Catalysts by Ana M. Beiler (2018 / a dissertation completed in partial fulfillment for the degree doctor of Philosophy)

An electronic copy is available at:

<https://search.proquest.com/openview/bc15893e2f19e9b7456017d1692c7711/1?pqori-gsite=gscholar&cbl=18750&diss=y>

Honors Awarded to Students in the G. F. Moore Research Group

As ASU Faculty:

- (41) **2021 SAACS Organic Achievement Award**/ Ahlea Reyes (current undergraduate student)
- (40) **SMS Innovation Award 2021**/ Nghi Nguyen (current graduate student)
- (39) **2021 Outstanding Graduate Research Assistant Award** / Lillian K. Hensleigh (current graduate student)
- (38) **2020 ACS Applied Materials and Interfaces Best Presentation Award** (Presented at 29th Inter-American Photochemical Society Winter Conference in Sarasota, FL) / Brian L. Wadsworth (former graduate student / defended 2020)
- (37) **2020 George Yuen Memorial Award** / Nghi Nguyen (current graduate student)
- (36) **2020 Outstanding Graduate Research Assistant Award** / Daiki Nishiori (current graduate student)
- (35) **2020 Outstanding Graduate Research Assistant Award** / Brian L. Wadsworth (former graduate student/ defended 2020)
- (34) **Selected Oral Presentation at the 2019 Photosynthesis Gordon Research Conference** / Brian L. Wadsworth (former graduate student / defended 2020)
- (33) **2019 ASU Outstanding Graduate to be Honored at Commencement Ceremony** / Diana Khusnutdinova (former graduate student / defended 2019)
- (32) **2019 George Yuen Memorial Award** / Brian L. Wadsworth (former graduate student / defended 2020)
- (31) **2019 Distinguished Teaching Assistant Award** / Edgar A. Reyes Cruz (current graduate student)
- (30) **2019 Achievement Rewards for College Scientists (ARCS)** / Brian L. Wadsworth (former graduate student / defended 2020)
- (29) **Invited Session Chair for the 2019 Gordon Research Symposium on Photosynthesis** / Brian L. Wadsworth (former graduate student / defended 2020)
- (28) **Recipient of a Swedish Olle Engkvist Foundation Postdoctoral Fellowship at Uppsala** / Anna M. Beiler (former graduate student / defended 2018)
- (27) **2018 Running on Sun Summer Internship Award** / Bruno Rergis (Phoenix Preparatory Academy high school student intern)

- (26) **2018 Leroy Eyring Memorial Fellowship** / Diana Khusnutdinova (former graduate student / defended 2019)
- (25) **2018 Graduate College Fellowship** / Brian L. Wadsworth (former graduate student / defended 2020)
- (24) **2018 Outstanding Graduate Research Assistant Award** / Brian L. Wadsworth (former graduate student / defended 2020)
- (23) **Selected at the 2018 Solar Fuel Gordon Research Conference on Renewable Energy: Solar Fuels to Chair the 2020 Symposium** / Anna M. Beiler (former graduate student / defended 2018)
- (22) **Invited Session Chair for the 2018 Gordon Research Symposium on Solar Fuels: Renewable Energy** / Anna M. Beiler (former graduate student / defended 2018)
- (21) **2017 Philanthropic Education Organization (PEO) Fellowship** / Anna M. Beiler (former graduate student / defended 2018)
- (20) **2017 Leroy Eyring Memorial Fellowship** / Brian L. Wadsworth (former graduate student / defended 2020)
- (19) **2017 George Yuen Memorial Award** / Diana Khusnutdinova (former graduate student / defended 2019)
- (18) **2017 Achievement Rewards for College Scientists (ARCS)** / Anna M. Beiler (former graduate student / defended 2018)
- (17) **2017 Science Fusion Award** / Diana Khusnutdinova (former graduate student / defended 2019)
- (16) **2017 Marie Curie Award** for Best Use of Chemistry / Anna M. Beiler (former graduate student / defended 2018)
- (15) **2017 Distinguished Teaching Assistant Award** / Diana Khusnutdinova (former graduate student / defended 2019)
- (14) **Invitation to Speak at the 2017 Photochemistry Gordon Research Symposium** / Anna M. Beiler (former graduate student / defended 2018)
- (13) **2017 Flash Presentation Award** / G. F. Moore Group at the 2017 International Solar Fuels Conference in San Diego, CA.
- (12) **2017 Bidstrup Undergraduate Fellowship** / Sylvia K. Nanyangwe (former undergraduate student / graduated 2018)
- (11) **2017 Running on Sun Summer Internship Award** / Ahlea Reyes (former Phoenix Preparatory Academy high school student intern / current ASU undergraduate student)
- (10) **2016 Student Affiliates of the American Chemical Society Award** / Samuel I. Jacob (former undergraduate student and co-author on four peer-reviewed publications in high-impact journals / graduated 2016)

- (9) **2016 George Yuen Memorial Award** / Diana Khusnutdinova, (former graduate student / defended 2019)
- (8) **2016 Material Research Society (MRD) Poster Presentation Award** / Anna M. Beiler (former graduate student / defended 2018)
- (7) **2015 Undergraduate Summer Enrichment Award** / Samuel I. Jacob (former undergraduate student / graduated 2016)
- (6) **2015 ACS Best Presentation in Session** / G. F. Moore Group at the 2015 National ACS Conference in Boston, MA.
- (5) **National Science Foundation IGERT-SUN Fellow** / Brian L. Wadsworth (former graduate student / defended 2020)
- (4) **National Science Foundation IGERT-SUN Fellow** / Anna M. Beiler (former graduate student / defended 2018)

In addition to these awards, graduate students in Prof Moore's group have been invited to chair Gordon Research Symposium sessions as well as organize sessions at the Materials Research Society Meetings.

Prior to Joining ASU Faculty:

- (3) **2014 Photochemistry Gordon Research Conference Young Investigator Award** / Alexandra Krawicz (former postdoctoral student)
- (2) **Western Photosynthesis Conference Best Poster Presentation Award (2014)** / Alexandra Krawicz (former postdoctoral student)
- (1) **Invitation to Speak at the 2014 Electron Donor-Acceptor Interactions Gordon Research Symposium** / Diana Cedeno (former postdoctoral student)

II. TEACHING EXPERIENCE

A. Courses Taught

Courses Taught at ASU:

- (25) **CHM 598 Solar Energy Conversion** / 3 credits / 100% taught (Fall 2021)
- (24) **CHM 234 General Organic Chemistry II** / 3 credits / 100% taught (Spring 2021)
- (23) **CHM 598 Photochemistry** / 3 credits / 100% taught (Fall 2020)
- (22) **CHM 234 General Organic Chemistry II** / 3 credits / 100% taught (Spring 2020)
- (21) **CHM 531 Advanced Organic Chemistry** / 3 credits / 100% taught (Fall 2019)
- (20) **CHM 433 Advanced Organic Chemistry** / 3 credits / 100% taught (Fall 2019)
- (19) **CHM 598 Solar Energy Conversion** / 3 credits / 100% taught (Spring 2019)
- (18) **CHM 598 Solar Energy Conversion** / 3 credits / 100% taught (Spring 2018)

- (17) **CHM 531 Advanced Organic Chemistry** / 3 credits / 100% taught (Fall 2017)
- (16) **CHM 433 Advanced Organic Chemistry** / 3 credits / 100% taught (Fall 2017)
- (15) **CHM 598 Solar Energy Conversion** / 3 credits / 100% taught (Spring 2017)
- (14) **CHM 531 Advanced Organic Chemistry** / 3 credits / 100% taught (Fall 2016)
- (13) **CHM 433 Advanced Organic Chemistry** / 3 credits / 100% taught (Fall 2016)
- (12) **CHM 501 Organic Chemistry** / 3 credits / 100% taught (Spring 2016)
- (11) **BCH 392 Introduction to Research Techniques** / 3 credits / 100% taught (Spring 2016)
- (10) **CHM 233 General Organic Chemistry** / 3 credits / 100% taught (Spring 2016)
- (9) **BCH 392 Introduction to Research Techniques** / 3 credits / 100% taught (Fall 2015)
- (8) **CHM 531 Advanced Organic Chemistry** / 3 credits / 100% taught (Fall 2015)
- (7) **CHM 433 Advanced Organic Chemistry** / 3 credits / 100% taught (Fall 2015)
- (6) **CHM 493 Honors Thesis** / 3 credits / 100% taught (Spring 2015)
- (5) **CHM 392 Introduction to Research Techniques** / 3 credits / 100% taught (Spring 2015)
- (4) **BCH 392 Introduction to Research Techniques** / 3 credits / 100% taught (Spring 2015)
- (3) **CHM 598 Solar Energy Conversion** / 3 credits / 100% taught (Fall 2014)

Courses Taught at Berkeley Labs:

- (2) Joint Center for Artificial Photosynthesis **Summer School on Surface Science** (Summer 2013)
- (1) Joint Center for Artificial Photosynthesis **Winter School on Solar Energy Conversion** (Winter 2012)

B. Student Mentoring

Students Currently Mentored at ASU (*For further information on members of the G. F. Moore research group as well as a brief description of their research and other interests, please visit the following web link: <http://www.gfmoorelab.com/people.html>*):

- (27) **Manik Sharma** (2021 – current / Graduate Student)
- (26) **Lillian Hensleigh** (2020 – current / Graduate Student)
- (25) **Nghi Nguyen** (2018 – current / Graduate Student)
- (24) **Daiki Nishiori** (2018 – current / Graduate Student)
- (23) **Ahlea Reyes** (2018 – current / Undergraduate Student Non-Research Credit)
- (22) **Yegor Zenkov** (2017 – current / Undergraduate Student Non-Research Credit)
- (21) **Edgar A. Reyes Cruz** (2016 – current / Graduate Student)

Students Formerly Mentored at ASU:

- (20) **Angel Nyarko** (summer 2021 / Phoenix Preparatory Academy High School Intern)
- (19) **Saraia Lolly** (summer 2021 / Phoenix Preparatory Academy High School Intern)
- (18) **Bridger Johnson** (2019 – 2020 / Undergraduate Student / Barrett, the Honors College)
- (17) **Brian L. Wadsworth** (2015 – 2020 / Graduate Student / Currently at INTEL)
- (16) **Diana Khusnutdinova** (2014 – 2019 / Graduate Student / Currently at INTEL)
- (15) **Bruno Rergis** (summer 2018 / Phoenix Preparatory Academy High School Intern/
Currently at Columbia University)
- (14) **Jennifer Urbine** (2017 – 2019 / Undergraduate Student Non-Research Credit / Currently
a Chemistry PhD candidate at University of California Irvine)

- (13) **Anna M. Beiler** (2014 – 2018 / Graduate Student / Currently at Institut Català
d'Investigació Química)
- (12) **Gabriela Gorosics** (2014 – 2018 / Visiting Researcher / North Point Prep High School
Teacher, Robotics Competition Team Captain)
- (11) **Sylvia K. Nanyangwe** (2015 – 2018 / Undergraduate Student Research Credit / Barrett,
the Honors College / MasterCard Fellow)
- (10) **Ahlea Reyes** (summer 2017 / Phoenix Preparatory Academy High School Intern /
Currently at Arizona State University)
- (9) **Christian Huber** (2015 – 2017 / Undergraduate Student Non-Research Credit)
- (8) **Edward Skibo** (2014 – 2016 / Undergraduate Student Barrett, the Honors College)
- (7) **Samuel I. Jacob** (2014 – 2016 / Undergraduate Student Research Credit / 2015 SAACS
Undergraduate Research Award / Currently a Chemistry PhD candidate at U.C. Santa
Barbara)
- (6) **Avraham Echeverri** (2014 – 2015 / Undergraduate Student Research Credit)
- (5) **Mathew Cash** (2014 – 2016 / Undergraduate Student Non-Research Credit)
- (4) **Nhu Mac** (2014 – 2015 / Undergraduate Student Non-Research Credit)

Students Formerly Mentored at Berkeley Lab:

- (3) **Alexandra Krawicz** (2012 – 2014 / Postdoctoral Scholar / 2014 Photochemistry Gordon
Research Conference Young Investigator Awardee / Western Photosynthesis Conference
Best Poster Presentation Award / Currently Employed at EMI Electronics, USA)
- (2) **Diana Cedeno** (2012 – 2014 / Postdoctoral Scholar / Invited Speaker to 2014 Electron
Donor-Acceptor Interactions Gordon Research Symposium / Currently Employed at PTRL
West-Evans Analytical Group, USA)

- (1) **Jesse Jenkins** (2012 – 2013 / Graduate Student / Co-advised with Prof. Don Tilley / Currently at Hedron LLC 3D-Printing and Prototyping Services)

C. Completed Courses and Training on Teaching and Mentoring:

- (1) **Fundamentals of Teaching in the Sciences** (Yale University, Fall 2012)

III. SERVICE

A. Professional Service

Conference Organization

As ASU Faculty:

- (3) **30th Western Photosynthesis Conference**. January 2nd and 9th, 2021 (Chair)
- (2) **29th Inter-American Photochemical Society Winter Conference**. Sarasota, FL. January 2-5, 2020 (Co-Chair)

Prior to ASU:

- (1) Photosynthesis, Bioenergy and Artificial Photosynthesis. **The 2012 Gordon Research Seminar on Photosynthesis**. Davidson College, Davidson, NC. July 7-8, 2012 (Chair)

Conference Sessions Chaired

As ASU Faculty:

- (5) The GRC Power-HourTM Session. **The 2019 Gordon Research Conference on Photosynthesis**. Newry, ME. July 21-26, 2019
- (4) Synthetic Photochemistry Session. **26th Winter Inter-American Photochemical Society Conference**. Sarasota, FL. January 2-5, 2017
- (3) Bioinspired Energy Conversion Session, ENVR Division. **250th ACS Meeting & Exposition**. Boston, MA. August 16-20, 2015

Prior to Joining ASU Faculty:

- (2) Artificial Photosynthesis Session. **21st Western Photosynthesis Conference**. Pacific Grove, CA. January 3-5, 2013 (Session Chair)
- (1) Artificial Photosynthesis Session. **22nd Western Photosynthesis Conference**. Pacific Grove, CA. January 5-8, 2012 (Session Chair)

Associate Editor of the Following Journal (Handling manuscripts with topics in Artificial Photosynthesis, Solar Fuels, and Green Chemistry):

- (1) Photosynthetic Research / Impact Factor: 3.091

Reviewer of the Following Representative Journals (reviewing ~3 manuscripts per month):

- (18) Nature Materials (Impact Factor: 38.887)
- (17) Energy and Environmental Science (Impact Factor: 33.250)
- (16) Journal of the American Chemical Society (Impact Factor: 14.695)
- (15) ACS Catalysis (Impact Factor: 12.221)
- (14) Nature Communications (Impact Factor: 11.880)
- (13) Proceedings of the National Academy of Science (Impact Factor: 9.580)
- (12) Chemical Science (Impact Factor: 9.556)
- (11) Journal of Physical Chemistry Letters (Impact Factor: 8.709)
- (10) Applied Materials and Interfaces (Impact Factor: 8.456)
- (9) Inorganic Chemistry (Impact Factor: 4.850)
- (8) Journal of Physical Chemistry C (Impact Factor: 4.484)
- (7) Physical Chemistry Chemical Physics (Impact Factor: 3.567)
- (6) International Journal of Hydrogen Energy (Impact Factor: 4.229)
- (5) Journal of Physical Chemistry B (Impact Factor: 3.146)
- (4) Interface Focus (Impact Factor: 3.092)
- (3) Photochemistry and Photobiology (Impact Factor: 2.214)
- (2) ACS Energy Letters (Impact Factor: 19.05)
- (1) ACS Applied Energy Materials (Impact Factor: 5.76)

Professional Organization Memberships:

- (9) American Indian Science and Engineering Society
- (8) Inter-American Photochemical Society
- (7) Society of Porphyrins and Phthalocyanines
- (6) The Electrochemical Society
- (5) American Chemical Society (Energy Science Division)
- (4) American Chemical Society (Environmental Chemistry Division)
- (3) Materials Research Society
- (2) International Society of Photosynthesis Research
- (1) Yale University Edward A. Bouchet Honor Society

B. Departmental Service

Comprehensive Exam Committees:

- (17) **Zhen Da** (2021)
- (16) **Alexandria Layton** (2021)
- (15) **Anuja Sharma** (2021)
- (14) **Garrett Shaver** (2019)
- (13) **Aerial Pratt** (2019)
- (12) **Thao Nguyen** (2019)
- (11) **Tania Miguel Trabajo** (2019)
- (10) **Jin Li** (2019)
- (9) **Jesse Granstrom** (2019)
- (8) **Michele Costantino** (2019)
- (7) **Mikayla Carlson** (2019)
- (6) **Julio Benal-Chanchavac** (2019)
- (5) **Zachary Dobson** (2017)
- (4) **Nicholas Halloran** (2015)
- (3) **Patrick Wallace** (2015)
- (2) **Samuel Williams** (2015)
- (1) **Zahra B. Dizicheh** (2014)

Comprehensive Exam Committee Chair:

- (1) **Abhishek Debnath** (2015)

Masters Defense Committees:

- (1) **Brandon Blass** (2019)

Doctoral Thesis Defense Committees:

- (2) **Matthew Gilliam** (2020)
- (1) **Dayn Sommer** (2016)

Doctoral Thesis Defense Committee Chair:

- (3) **Brian L. Wadsworth** (2020)
- (2) **Diana Khusnutdinova** (2019)
- (1) **Anna M. Beiler** (2018)

Other Committees and Service at Arizona State University:

- (17) **Personell and Budget Committee** (Spring 2021)
- (16) **Personell and Budget Committee** (Fall 2020)
- (15) **School of Molecular Sciences Leadership Committee** (Spring 2019 – Spring 2020)
- (14) **Oral Exam Committee** (Spring 2019)
- (13) **Graduate Student Committee** (Spring 2019)
- (12) **School of Molecular Sciences Leadership Committee** (Fall 2019)
- (11) **Oral Exam Committee** (Fall 2019)
- (10) **Graduate Student Committee** (Fall 2019)
- (9) **Graduate Student Awards Committee** (Spring 2019)
- (8) **Graduate Student Committee** (Fall 2018)
- (7) **Center for Bioenergy and Photosynthesis Seminar Committee** (Fall 2016 – Spring 2018)
- (6) **School of Molecular Sciences Seminar Committee** (Fall 2016 – Spring 2018)
- (5) **School of Molecular Sciences Recruitment Committee** (Fall 2016 and Spring 2017)
- (4) **School of Molecular Sciences Recruitment Committee** (Fall 2015 and Spring 2016)
- (3) **XFEL Faculty Search Committee** (Fall 2015 and Spring 2016)
- (2) **Chemistry and Biochemistry Recruitment Committee** (Fall 2014 Spring 2015)
- (1) **Photosynthesis Faculty Search Committee** / Joint search with School of Life Sciences and Chemistry and Biochemistry (Fall 2014 and Spring 2015)

External Review Service for the following Institutions:

- (4) Frederick Gardner Cottrell Foundation (2019)
- (3) Petroleum Resarch Foundation (2019-2020)
- (2) Department of Energy (2017-2020)
- (1) National Science Foundation External (2017-current)

Committees and Service at Berkeley Labs:

- (6) Berkeley Lab's Energy Cross Divisional Implementation Team (2013 – 2014)
- (5) Staff Scientist Hiring Committee (2013 – 2014)
- (4) Joint Integration Team (2012 – 2014)
- (3) Building Emergency Team (2012 – 2014)
- (2) Lab Manager Hiring Committee (2012 – 2014)

- (1) Coordinator for acquisition and installation of DOE Solar-Energy Hub capital research equipment, including a \$1M NMR spectrophotometer (2011)

C. Outreach Activities

Outreach Activities as ASU Faculty:

- (18) Invited speaker and panelist at the Fifteenth Annual Arizona Western Alliance to Expand Student Opportunities (WAESO) Student Research Conference. Panel session on “Why you should consider Doctoral education and the Professorate (2021)
- (17) Invited speaker and panelist at the Fourteenth Annual Arizona Western Alliance to Expand Student Opportunities (WAESO) Student Research Conference. Panel session on “Why you should consider Doctoral education and the Professorate (2020)
- (16) Discussion moderator and session chair at the ASU 2017 Doing Research in Indian County Workshop panel session on sustainability with panelist: Dr. Jamie Ritchey, *Director of Tribal Epidemiology*; Violet Mitchell-Enos, *Director, HHS, SRP-MIC*; and Dr. Dave Wilson, *Tribal Health Research Office, NIH* (2017)
- (15) Worked with the Tempe Center for the Arts and local Arizona artist Jose Benavides on a project regarding bioinspired research and the use of art to convey scientific concepts to the general public (2017)
- (14) Initiated and host the Running on Sun Internship (ROSI) program at ASU, an NSF-sponsored project that provides high school internships for developing scientists through the Phoenix Preparatory Academy, which is composed almost entirely of underserved groups (2017 – current)
- (13) Mentor undergraduate students in ASU’s Barrett, the Honors College (2015 – current)
- (12) Coach local high school students participating in the Arizona Science and Engineering Fair (AzSEF) (2015 – current)
- (11) Mentor for *students affiliated with the American Indian Science & Engineering Society (AISES)* at ASU (current)
- (10) Grand Judge for the INTEL International Science & Engineering Fair (2016)
- (9) Presenter at the Telluride Workshop on “*Solar Solutions to Energy and Environmental Problems*” (2015)
- (8) Session Chair for Bioinspired Energy Conversion Session, ENVR Division at the 250th ACS Meeting & Exposition (2015)
- (7) Mentor North Point Preparatory Academy High School teacher Gabriela Gorosics (2015 – 2018)
- (6) Invited Lecturer at the Royal Society at Chicheley Hall “*Do We Need a Global Project on Artificial Photosynthesis*” workshop (2014)

Outreach Activities at Berkeley Labs:

- (5) Panel Discussion Participant to Berkeley Lab Film Screening of *Switch: Discover the Future of Energy* (2013)
- (4) Instructor for a Surface Science Summer School Outreach Program (2013)
- (3) Participant in the Berkeley Lab Open House Outreach Program: Ask a Scientist (2013)
- (2) Instructor for a Solar Energy Conversion Winter School Outreach Program (2012)
- (1) Participant in the Berkeley Lab Open House Outreach Program: Make Like a Leaf (2012)