**Address:** School of Molecular Sciences

Arizona State University

Tempe, AZ 85297-1604, U.S.A.

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**Education:** Arizona State University, Tempe, AZ (2012 – present)

Ph. D. candidate in Chemistry & Biochemistry

Advisors: Gary F. Moore & Thomas A. Moore

Messiah College, Grantham, PA (2004 – 2008)

Ph.D. in Biochemistry

Advisor: Roseann K. Sachs

**Internships:** Pacific Northwest National Laboratory- Batelle Marine Sciences Laboratory, Sequim, WA (Summer 2007)

Advisor: Irv Schultz

**Honors and Awards:**

(12) NSF IGERT:SUN CompetitionInnovation Fund Recipient, 2016 – 2018.

(11) ARCS Foundation Scholar, 2017 – 2018.

(10) P.E.O. Scholar, 2017 – 2018.

(9) Marie Curie Award for Best Use of Chemistry, FUSION 2017: Biodesign Scientific Retreat, Cave Creek, AZ, April 2017.

(8) College of Liberal Arts & Sciences Graduate Excellence Award, 2016 – 2017.

(7) Distinguished Poster Award, Arizona Student Energy Conference, Flagstaff, AZ, September 2016.

(6) First Generation Graduate Excellence Award, ASU College of Liberal Arts and Sciences, May 2016.

(5) Individual Travel Grant, ASU Graduate and Professional Student Association, February 2016.

(4) Graduate Education Travel Award, ASU School of Molecular Sciences, February 2016.

(3) NSF IGERT:SUN Traineeship, 2012 – 2017.

(2) President’s Scholarship, Messiah College, 2004 – 2008.

(1) Honors Program, Messiah College, 2004 – 2008.

**Journal Publications:**

(5) Beiler, A.M.; Khusnutdinova, D.; Wadsworth, B.L.; Moore, G. F. Cobalt Porphyrin-polypyridyl Surface Coatings for Improved Photoelectrosynthetic Fuel Production, *in preparation.*

**(4)** Khusnutdinova, D.; Beiler, A. M.; Wadsworth, B. L.; Jacob, S. I.; Moore, G. F. Metalloporphyrin-modified Semiconductors for Solar Fuel Production. *Chem. Sci.* **2017**, *8*, 253-259.

(3) Wadsworth, B. L.; Beiler, A. M.; Khusnutdinova, D.; Jacob, S. I.; Moore, G. F. Electrocatalytic and Optical Properties of Cobaloxime Catalysts Immobilized at a Surface-Grafted Polymer Interface. *ACS Cata.* **2016**, *6*, 8048-8057.

**(2)** Beiler, A.M.; Khusnutdinova, D.; Jacob, S.I.; 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*, 10038–10047.

**(1)** Beiler, A.M.; Khusnutdinova, D.; Jacob, S.I.; Moore, G. F. Chemistry at the Interface: Polymer-Functionalized Semiconductors for Solar Hydrogen Production. *Ind. & Eng. Chem. Research*, **2016**, *55*, 5306-5314. *Special Issue “Invited Papers from ACS Boston”.*

**Conference Publications:**

**(2)** 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.

**(1) Moore, G. F.; Khusnutdinova, D.; Beiler, A.; Jacob, S.; Skibo, E.; Echeverri, A.** Running on Sun: Bioinspired Approaches to Achieving Solar Fuels. *Abstract of Papers, 250th ACS Meeting & Exposition* **2015**, pp ENV-332.

**Conference Sessions Organized:**

1. “Harnessing the Power of Solar, ” Materials Research Society Meeting, Phoenix, AZ, March 2016 (Session Organizer and Chair).

**Conference Sessions Chaired:**

1. “Electron Transfer in Molecules and Beyond,” Electron Donor-Acceptor Interactions Gordon Research Seminar, Newport, RI, August 2016.

**Invited Talks:**

(4) “Streamlined Synthesis and Assembly of a Hybrid Cobalt Porphyrin-Polypyridine-Modified Cathode for Photoelectrochemical Fuel Production,” Photochemistry Gordon Research Seminar, Lewiston, ME, July 2017.

(3) “Artificial Photosynthesis for Clean Energy,” Sandra Day O’Connor High School STEM Conference, Phoenix, AZ, May 2017.

(2) “Running on Sun All Night Long”, Arizona Student Energy Conference, Flagstaff, AZ, September 2016.

(1) “Artificial Biosynthesis: Conversion of Solar Energy to Chemical Energy Through Surface-Immobilized Catalysts,” Arizona Student Energy Conference, Tucson, AZ, April 2015.

**Outreach Activities:**

(8) Symposium Assistant, Materials Research Society Meeting, Phoenix, AZ, April 2017.

(7) Invited Grand Award Judge, Intel International Science and Engineering Fair,2016

(6) Next Gen Voices Essay, “Ingenuity”, *Science*, May 2016.

(5) Grant Reviewer, Graduate and Professional Student Association, September 2015 – present.

(4) Science Mentor, “Innovate to Mitigate” Challenge, Technical Research Institute Center, 2014 – 2015.

(3) Next Gen Voices Essay, “NextGen's Course Catalog”, *Science*, January 2015.

(2) Team Leader, “GREEN RICE: An Integrated Biomass Reactor,” NSF IGERT Video and Poster Competition, May 2013.

(1) Community Environmental Development Worker, Peace Corps Dominican Republic, March 2010 – May 2012.

**Poster Presentations:**

(6) Beiler, A. M.; Khusnutdinova, D.; Moore, G. F. Streamlined Synthesis and Assembly of a Hybrid Cobalt Porphyrin-Polypyridine-Modified Cathode for Photoelectrochemical Fuel Production. *FUSION 2017: Biodesign Scientific Retreat*, Cave Creek, AZ, April 2017.

(5) Beiler, A. M.; Khusnutdinova, D.; Jacob, S. I.; Moore, G. F.Structure-Function Relationships of Molecular Modified Photocathodes. *Arizona Student Energy Conference*, Flagstaff, AZ, September 2016.

(4) Beiler, A. M.; Khusnutdinova, D.; Jacob, S. I.; Moore, G. F.Structure-Function Relationships of Molecular Modified Photocathodes*. Electron Donor-Acceptor Interactions Gordon Research Conference,* Newport, RI, August 2016.

(3) Beiler, A. M.; Khusnutdinova, D.; Jacob, S. I.; Moore, G. F.Solar Hydrogen Production using Molecular Catalysts Immobilized On Gallium Phosphide [111]A and [111]B Polymer-modified Photocathodes.*Materials Research Society Meeting,* Phoenix, AZ, March 2016.

(2) Beiler, A. M.; Khusnutdinova, D.; Jacob, S. I.; Moore, G. F.Solar Hydrogen Production using Molecular Catalysts Immobilized On Gallium Phosphide [111]A and [111]B Polymer-modified Photocathodes. *Solar Fuels Gordon Research Conference,* Lucca, Italy, February 2016.

(1) Beiler, A.M.; Vaughn, M. D.; Enderle, K.; Moore, T. A.; Moore, G. F. Covalent Attachment and Orientation of Plant-type Ferredoxin and Direct Electrochemical Analysis of the [2Fe-2S] Redox Center. *24th Western Photosynthesis Conference*, Pacific Grove, CA, January 2015.

**Teaching Experience**:

(4) **BCH 463** Biophysical Chemistry, Teaching Assistant (2015 - 2016)

(3) **CHM 460** Biological Chemistry, Teaching Assistant (2016)

(2) **CHM 433** Advanced Organic Chemistry, Teaching Assistant (Fall 2015)

(1) **CHM 237** General Organic Chemistry, Laboratory Instructor(2014)

**Professional Organizations:**

(2) Materials Research Society

1. American Women in Science Association