

Address: School of Molecular Sciences
Arizona State University
Tempe, AZ 85297-1604, U.S.A.

Email: Nghi.Nguyen@asu.edu

Education: **Arizona State University**, Tempe, AZ (2018 – now)
Graduate Student in Chemistry
Advisor: Prof. Gary F. Moore
University of Sciences, Ho Chi Minh City, Viet Nam (2013 – 2017)
B.S. in Chemistry
Advisor: Dr. Phuong T. Nguyen and Dr. Nhan P. B. Nguyen

Employment: **Arizona State University**, Tempe, AZ (2018-now)
Research and Teaching Assistant
ALT IELTS English School, Ho Chi Minh City, Viet Nam (2017-2018)
English Teacher

Internships:

- (2) National Tsing Hua University, Department of Engineering, Hsinchu, Taiwan (2017)
Prof. Chien-Wei Wu research lab
- (1) *International Week Vienna*, University of Economics and Business, Vienna, Austria (2017)

Fellowships, Awards, and Honors:

- (12) Conference Travel Award, from The Graduate College, Arizona State University (2022).
- (11) Completion Fellowship, from The Graduate College, Arizona State University (2022).
- (10) Outstanding Graduate Research Assistant Award, from School of Molecular Sciences, Arizona State University (2022).
- (9) Trophy and Medal from the American Chemical Society – Energy and Fuels Division (2021).
- (8) “SMS Innovation Award”, from School of Molecular Sciences, Arizona State University (2021).
- (7) “George U. Yuen Memorial Graduate Award” from School of Molecular Sciences, Arizona State University (2020).

CURRICULUM VITAE

- (6) “International Week Vienna” participant, Conference at Austrian Federal Economic Chamber from Vienna University of Economics and Business (2017)
- (5) Outstanding Student of University of Sciences Title (2014-2017) with “Encouragement Scholarship” from University of Sciences, Ho Chi Minh City (2014-2017)
- (4) “Education USA Standardized GRE” Scholarship from American Center, Consulate General of the United States – Ho Chi Minh city (2016)
- (3) YOLA Scholars 2016 for Young Leaders scholarship from Yola Institute (2016)
- (2) “Speak your mind” first prize English speaking contest – HCMUS (2016)
- (1) First runner-up “Ho Chi Minh University of Science Ambassador” (2015).

Journal Publications

At Arizona State University:

- (9) Nguyen, N. P.; Hensleigh, L. H., Nishiori, D.; Reyes Cruz, E. A.; Moore, G. F. **Degrade-Repair Cycle of a Fuel-forming Photoelectrode**. *ACS Appl. Energy Mater.* **2022**, *5*, 13128–13133. (cover article).
- (8) Reyes Cruz, E. A.; Nishiori, D.; Wadsworth, B. L.; Nguyen, N. P.; Hensleigh, L. K.; Khusnutdinova, D; A. M.; Beiler, A. M.; Moore, G. F. **Molecular-Modified Photocathodes for Applications in Artificial Photosynthesis and Solar-to-Fuel Technologies**. *Chem. Rev.* **2022**, *122*, 16051–16109 (cover article).
- (7) Nishiori, D.; Wadsworth, B. L.; Reyes Cruz, E. A.; Nguyen, N. P.; Hensleigh, L. K.; Karcher, T.; Moore, G. F. **Photoelectrochemistry of Metalloporphyrin-Modified GaP Semiconductors**. *Photosynth. Res.* **2022**, *151*, 1-10.
- (6) Nguyen, N. P.; Moore, G. F. **Storing Sunlight at low temperature?** *Joule.* **2021**, *5*, 2254-2256.
- (5) Nguyen, N. P.; Wadsworth, B. L.; Nishiori, D.; Reyes Cruz, E. A.; Moore, G. F. **Understanding and Controlling the Performance-Limiting Steps of Catalysts-Modified Semiconductors**. *J. Phys. Chem. Lett.* **2021**, *12*, 199-203.
- (4) Wadsworth, B. L.; Nishiori, D.; Nguyen, N. P.; Nishiori, D.; Reyes Cruz, E. A.; Moore, G. F. **Electrochemistry of Polymeric Cobaloxime-Containing Assemblies in Organic and Aqueous Solvents**. *ECS J. Solid State Sci. Technol.* **2020**, *9*, 061018.

- (3) Wadsworth, B. L.; Nguyen, N. P.; Nishiori, D.; Belier, A.M.; 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).

At University of Sciences, Ho Chi Minh City:

- (2) Phan, Thu ‡; Nguyen, N. P. ‡; Nguyen, L.; Nguyen, P.; Le, K. T.; Huynh, T.; Lund, T.; Tsai, D.-H.; Wei, T.-C.; Nguyen, P. T. **Direct experimental evidence for the adsorption of 4-tert-butylpyridine and 2,2'-bipyridine on TiO₂ surface and their influence on dye-sensitized solar cells' performance**. *Appl. Surf. Sci.* **2019**, 144878. (‡ denotes equal author contributions).
- (1) Nguyen, P.T.; Nguyen, N. P.; Nguyen, L.; **4,4'-dinonyl-2,2'-bipyridine as an alternative electrolyte additive for improving the thermal stability of ruthenium dyes in dye-sensitized solar cells**. *J. Phys. Chem. Solids.* **2018**, *122*, 234-238.

Meeting Presentations

- (9) Nguyen, N. P.; Hensleigh, L. K.; Nishiori, D.; Reyes Cruz, E. A.; Moore, G. F. **Degrade-Repair Cycle of a Fuel-forming Photoelectrode, US-German Workshop Series on Artificial Photosynthesis**, November 3, 2022 (Poster Presentation).
- (8) Nguyen, N. P.; Nishiori, D.; Reyes Cruz, E. A.; Hensleigh, L. K.; Moore, G. F. **Understanding and Controlling the Performance Limiting Steps of Catalyst-Modified Semiconductors, Gordon Research Conference Electron Donor-Acceptor Interactions**, July 31 – August 5, 2022 (Poster Presentation).
- (7) Nguyen, N. P.; Wadsworth, B. L.; Nishiori, D.; Reyes Cruz, E. A.; Hensleigh, L. K.; Moore, G. F. **Understanding and Controlling the Performance-Limiting Steps of Catalyst-Modified Semiconductors, Biodesign Institute Fusion 2022**, April 8, 2022 (Poster Presentation).
- (6) Nguyen, N. P.; Wadsworth, Brian L.; Nishiori, Daiki; Beiler, Anna M.; Moore, G. F. **Addressing the Origin of Photocurrents in Photoelectrosynthetic Assemblies containing Light-Absorbing Catalysts, Inclusive Future Faculty Symposium 2022**, March 2022 (Poster Presentation).
- (5) Nguyen, N. P.; Wadsworth, B. L.; Nishiori, D.; Reyes Cruz, E. A.; Hensleigh, L. K.; Moore, G. F. **Understanding and Controlling Factors Limiting the Performance of Catalyst-Modified Semiconductors, ACS ENFL Student Seminar Series**, December 10, 2021 (Oral Presentation).
- (4) Nguyen, N. P.; Wadsworth, B. L.; Nishiori, D.; Reyes Cruz, E. A.; Hensleigh, L. K.; Moore, G. F. **Understanding and Controlling the Performance-Limiting Steps of Catalyst-Modified Semiconductors., Winter Poster Session 2021 on Artificial Photosynthesis**, December 7, 2021 (Poster Presentation).

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- (3) Nguyen, N. P.; Wadsworth, B. L.; Nishiori, D.; Reyes Cruz, E. A.; Moore, G. F. Understanding and Controlling the Performance-Limiting Steps of Catalysts-Modified Semiconductors, **ACS Fall Meeting**, August 2021 (Oral Presentation).
- (2) Nguyen, N. P.; Wadsworth, B. L.; Nishiori, D.; Reyes Cruz, E. A.; Moore, G. F. Photoelectrochemistry of Gallium Phosphide and Gallium Arsenide Surfaces, **Materials Research Society Spring Meeting and Exhibit**, November 2020 (Poster Presentation).
- (1) Nguyen, N. P.; Wadsworth, Brian L.; Nishiori, Daiki; Beiler, Anna M.; Moore, G. F. Addressing the Origin of Photocurrents in Photoelectrosynthetic Assemblies containing Light-Absorbing Catalysts, **Inter-American Photochemical Society Meeting**, Sarasota, FL, January 2020 (Poster Presentation).

Media Coverage

- (2) **ASU News: Fuel for thought: Advancing solar-to-fuel technology**
<https://news.asu.edu/20221115-fuel-thought-advancing-solartofuel-technology>
- (1) **ASU News: ASU Innovation Award recipient proposes new pathway to produce fuels**
<https://news.asu.edu/20210427-asu-innovation-award-recipient-proposes-new-pathway-produce-fuels>

Teaching Experience

- (3) Arizona State University, Tempe, Arizona (2018-now)
Graduate Teaching Assistant
 - i. CHM 343 Elementary Physical Chemistry Laboratory
 - ii. CHM 348 Physical Chemistry I Laboratory
 - iii. CHM 116 General Chemistry II Laboratory
- (2) ALT IELTS, Ho Chi Minh City, Viet Nam (2017-2018)
English Teacher
- (1) Private Tutor (2013-2018)
Tutor in Math, Chemistry, Physics and English for High School Students

Outreach Activities

- (9) GPSA Award Reviewer – ASU (2022-2023)
- (8) Arizona Science and Engineering Fair, Judge – Senior Division-Material Science (2022 & 2023).
- (7) “Together we thrive” – STEM panel invited speaker, Association of Vietnamese Students and Professionals in the United States, USA (2021).
- (6) Arizona State University’s *Home Coming* Event volunteer, Tempe, AZ (2021)

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- (5) *Running On Sun* Internship (ROSI) for high school students at Gary. F. Moore lab, Tempe, AZ (2021 & 2022).
- (4) Arizona State University's *Open Door* Event volunteer, Tempe, AZ (2019 & 2023)
- (3) Academic Global Leadership with Japanese Students in Ho Chi Minh City, Viet Nam (2017)
- (2) University Entrance Exam Support, Team Leader, Ho Chi Minh City, Viet Nam (2015-2016)
- (1) *Voluntary Spring* volunteer, Ho Chi Minh City, Viet Nam (2016-2017)