Anne Katherine Jones

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EDUCATION

2002 **D. Phil.** Inorganic Chemistry University of Oxford, United Kingdom
Supervisor: Prof. Fraser A Armstrong
Dissertation Title: Investigations of electron transfer in redox enzymes
Funding: Rhodes Scholarship and NSF Graduate Research Fellowship

1998 **B. Sc.** Chemistry and Mathematics University of the South, Sewanee, TN
Summa cum laude; University Salutatorian

PROFESSIONAL POSITIONS

2021-present **Vice Provost for Undergraduate Education,** Office of the University Provost, ASU

2020-present **Professor**, School of Molecular Sciences, Arizona State University (ASU)

2013-2020 **Associate Professor**, School of Molecular Sciences, ASU

2015-2019 **Associate Director of Academic Affairs**, School of Molecular Sciences, ASU

2014 **Visiting Professor and Fellow in Residence;** Aix Marseille Université and Institut D'Etudes Avancées Exploratoire Méditerranéen de l'Interdisciplinarité ; Marseille, France

2007-2013 **Assistant Professor**, Department of Chemistry and Biochemistry, ASU

2004-2006 **NIH NRSA Postdoctoral Fellow**; Department of Biochemistry and Biophysics, University of Pennsylvania. Advisor: P. Leslie Dutton

2002-2004 **Alexander von Humboldt Foundation Postdoctoral Fellow**; Institute for Microbiology; Humboldt Universität zu Berlin (Germany). Advisor: Bärbel Friedrich

HONORS AND AWARDS

2019 Zebulon Pearce Distinguished Teaching Award selected by the College of Liberal Arts and Sciences

2019 ASU Founder's Day Teaching Achievement Award (jointly awarded with I. Gould)

2012 DOE Faculty Early Career Award (CAREER)

2009 Camille and Henry Dreyfus Special Grant in the Chemical Sciences

2007 Air Force Office of Scientific Research Young Investigator Award (CAREER)

2005 NIH-NRSA Post-Doctoral Fellowship

2002 Alexander von Humboldt Post-Doctoral Fellowship

1998 NSF Graduate Research Fellowship

1998 Rhodes Scholar (Oxford University)

TEACHING AND MENTORING

Courses Taught

This list includes only lecture courses. It does not include research, honors, or individualized instruction.

Prefix (credit hours)	Course Title	Semesters (Enrollment)
CHM 113 (4)	General Chemistry I (online version)	Fall 2016 (16) jointly with T. Windman Fall 2017 (72)
CHM 114x (4)	General Chemistry for Engineers (Online Open Access Version)	Fall 2018 (87) jointly with I. Gould; Fall 2019 (264)
CHM 116 (4)	General Chemistry II (online version)	Fall 2016 (13) jointly with G. Cabirac Fall 2017 (54) jointly with V. Mujica
CHM 117 (3)	General Chemistry for Majors I	Fall 2018 (186) jointly with M. Levitus; Fall 2019 (170), Fall 2020 (157), Fall 2021 (TBD) jointly with M. Levitus
CHM 494 (3)	Special Topics in Chemistry Sustainability	Fall 2009 (6) Spring 2010 (9) Spring 2011 (8)
CHM 452 (1)	Inorganic Chemistry Laboratory	Spring 2009 (12)
CHM 453 (3)	Inorganic Chemistry	Spring 2007 (30) Fall 2009 (69) Fall 2011 (46) Fall 2012 (37) Fall 2013 (37) Fall 2017 (43) jointly with J. Kouvetakis
CHM 501 (1)	Special Topics in Inorganic Chemistry	Spring 2008 (36) jointly with A. Angel Spring 2009 (8) Spring 2010 (17) Fall 2011 (8) Fall 2013 (4) Fall 2015 (11)
CHM 501 (1)	Communication Skills in Chemistry and Biochemistry	Fall 2021 (20) jointly with M. Levitus
CHM 494/598 (3)	Writing for Chemists	Spring 2014 (20) Spring 2017 (12) Spring 2020 (27) jointly with V. Mujica
CHM 598 (3)	Bioinorganic Chemistry	Fall 2007 (13) Fall 2010 (23) Spring 2013 (10) Spring 2016 (10)

Family Leave: Fall 2008
Pre-tenure teaching release: Spring 2008; Spring 2012
Sabbatical: Fall 2014; Spring 2015
Administrative Teaching Release: Fall 2015; Spring 2018; Spring 2019, Spring 2021

Teaching Collaborators at ASU (for content development or delivery): Gary Cabirac, Ian Gould, John Kouvetakis, Marcia Levitus, Pamela Marks, Ashli Morgan, Vladimiro Mujica, Abhishek Singharoy, Peter Williams, Todd Windman

Mentoring

Postdoctoral Fellows and Visiting Scientists Trained (7 total)

(1) John Freeman	2009	(2) Idan Ashur	2009-2013
(3) Angelo Cereda	2011-2014	(4) Lu Gan	2011-2015
(5) Zahra Nazemi	2015-2018	(6) Christina Forbes	2016- present
(7) Miyuki Thirumurthy	2019-2020		

Graduate Students Trained as Supervisor (12 total)

Current Students

Justus Nwachukwu, Ph. D. in Biochemistry, in progress
Kelsea Evraets, Ph. D. in Chemistry, in progress
Gaurav Galiyan, Ph. D. in Chemistry, in progress
Thao Nguyen, Ph. D. in Biochemistry, in progress

Past PhD Students

S. Garrett Williams 2020 Skysong Innovations
"Electrocatalytic Comparison of [FeFe]-Hydrogenases

Miyuki Thirumurthy 2019 ASU Postdoctoral research fellow
"Long-range Microbial Electron Transfer: Natural Mechanisms and Synthetic Models"

David Jennings 2018 Scientist, KBI Biopharma
"Electrochemical Investigation of Electron Bifurcating Oxidoreductases"

Joseph Laureanti 2017 Chemist, Pacific Northwest National Laboratory
"Bioinspired Electrocatalytic Hydrogen Production: Synthetic and Biological Approaches"

Patrick Kwan 2014 Manager, QC Laboratory, Medivant Healthcare, Inc.
"The Investigation and Characterization of Redox Enzymes Using Protein Film Electrochemistry"

Souvik Roy 2013 Senior Lecturer, University of Lincoln, UK
"Biomimetic Models of [FeFe]-hydrogenase: Utilization of peptides and redox non-innocent ligands in synthetic catalysts"

Arnab Dutta 2012 Assistant Professor, IIT Bombay
"Reactivity of Metal (Co, Ni, Cu) Bound Peptides with Organometallic Fragments and Small Molecules"

Chelsea McIntosh 2012 Residential Chemistry Faculty at South Mountain Community College
"Investigation and characterization of group 3 [NiFe]-hydrogenases using protein film electrochemistry (PFE): insights into catalytic bias and O_2-tolerance"

Doctoral Dissertation Committee Member (33 total)

In Progress (5): Julio Bernal-Chanchavac (Ph.D. in Chemistry); Angela Edwards (Ph.D. in Biochemistry); Jesse Granstrom (Ph.D. in Biochemistry); Justin Gonzales (Ph.D. in Material Science and Engineering), Andrey Kanygin (Ph. D. in Biochemistry)

Completed (28): Joshua Nye (2020 Ph. D. in Chemistry); Eduardo Espiritu (2019 Ph.D. in Biochemistry); William Johnson (2019 Masters in Biochemistry); Yinnan Chen (2018 Ph. D. in Biochemistry); Christopher Gisriel (2017 Ph. D. in Biochemistry); Grayson Boyer (2017 Ph.D. in Chemistry); Dustin Rand (2016 M Sc. in Biochemistry); Ipsita Dutta (2015 Ph.D. in Molecular Biology); Trevor Kashey (2015 Ph.D. in Biochemistry); Shobeir K. S. Mazinani (2015 Ph. D. in

Chemistry); Basab Roy (2014 Ph.D. in Biochemistry); Michael Vaughn (2014 Ph.D. in Biochemistry); Robert Schmitz (2014 Ph.D. in Chemistry); Christopher Starr (2014 M.S. in Chemistry); Andrew Brown (2014 Ph.D. in Biochemistry); Kiwan Jeon (2013, Ph.D. in Chemistry); Keira Reifschneider (2013, Ph. D. in Biochemistry); Christopher Madden (2012, Ph.D. in Biochemistry); John Cowgill (2012, M.S. in Biochemistry); Jennifer Glass (2011, Ph.D. in Geological Sciences); Jennifer L. Morgan (2011, Ph.D. in Chemistry); Sara Bowen(2010, Ph.D. in Chemistry); James Jursich (2010, M.S. in Biochemistry); Michelle Meighan (2010, Ph.D. in Chemistry); Aaron Tufts (2010, Ph.D. in Biochemistry); Lijing Jiang (2009, M.S. in Biochemistry); Lingyan Song (2009, Ph.D. in Chemical Engineering); Michael Hambourger (2008, Ph.D. in Chemistry)

Graduate Students- Member of Oral Exam Committee (20 total; chair 7)

Note: In 2019, this function ceased to exist as a result in the change of candidacy exam structure.

Chengxi Lu (2018); Shaojiang Chen (2015); Chandrani Ghosh (2014); Dayna Peterson (2014, Chair)*;* Anna Beiler (2014)*;* Tufan Mukhopadhyay (2013); Dayna Peterson (2013); Saikat Manna (2012, Chair); Rajeev Ranjan (2012); Lina Franco (2012)*;* Dongran Han (2011, Chair)*;* Sriloy Dey (2011, Chair)*;* Rajiv Luthra (2009); John Benedet (2009, Chair)*;* Yang Li (2007); Xiaodong Qi (2007); Yang Wu (2007, Chair)*;* Tracy Niday (2007); Janelle Jenkins (2007, Chair); Yinan Liu (2007)

Undergraduate Students (Total in Jones lab for 1 or more semesters: 26; Honors Thesis Committees: 8, 4 as chair)

Honors Theses (Chaired):

1. Bryant Kearl (HT 2009) "Identification of an indium tin oxide binding peptide and its use in electrochemical applications"

2. Susan Qualls (HT 2011) "Purification and Electrochemical Characterization of a Variant Azurin Designed to Facilitate Stable Interactions with Indium Tin Oxide"

3. Julian Reed (HT 2011) "Comprehensive Alanine Screening of and Indium Tin Oxide Binding Peptide"

4. Nicholas Herringer (HT 2018) "Electronic Structure Determination via DFT of a Ni Hydrogen Production Catalyst"

Honors Theses (Committee Member)

Chelsea Smith (2018, Director Prof. Kevin Redding); Alec Smith (2017, Director Prof. Kevin Redding); Tyler M. Porter (2014, Director Prof. Ryan Trovitch); Brandon Jones (2010, Director Prof. Mark Hayes)

Undergraduate Research in Jones Lab:

Samantha Sokol (Oct 2018-2020)*;* Chi (Steven) Luan Do (Jan 2019-2020); Kelsea Evraets (Aug 2017-August 2018); Nicholas Herringer (Jan 2018-April 2018)*;* Arianne Zaiyani (Jan 2015-June 2017)*;* Amity Jackson (Jan 2017- May 2017)*;* Ejona Rapaj (Jan 2016-May 2016); Jeremy Strong (July 2014-May 2015); John Collins (Jan 2013-Dec 2013); Clara Karches (Exchange student from Mainz, August 2012-Feb 2013); Adam Woodard (Sept 2012-May 2013); Britton Carter (March 2012-Dec 2012); Thuy-Ai Nguyen (Jan 2011-May 2012); Daniel Duan (May 2010- May 2011); Amron Harper (Sept 2011-Dec 2011); Johannes Nagel (exchange student from Mainz, Sept. 2010-Feb 2011); Julian Reed (HT, 2011; May 2009-May 2011); Susan Qualls (HT, 2011; August 2009-May 2011); Logan Koehler (April 2009-May 2010); Robert Steele (May 2010-Dec. 2010); Daniel Taylor (Summer 2010); Bryant Kearl (HT 2009; Jan 2008-May 2009); Jason Yates (May 2009-August 2009); Nathan Sylvain (Aug 2007-May 2008); Nicholas Teodori (Jan 2007-May 2008); Loreth Vergara (Aug 2008-Dec 2008)

RESEARCH FUNDING

Ongoing Extramural Research Funding

School of Molecular Sciences at Arizona State University: Chemical Sciences Bridge Site
4/1/2021-3/31/2024
Genentech award to the American Chemical Society (ASU as subcontract)
Total Award Amount: $180,000
Role: PI; Senior Personnel: Ara Austin, Barbara Munk, Marcia Levitus, and Ryan Trovitch

REU Site: Research Experiences for Undergraduates in Sustainable Chemistry and Catalysis at Arizona State University
9/1/2021-8/31/2024
National Science Foundation
Total Award Amount: $405,000
Role: Co-PI; PIs: Ryan Trovitch and Laura Ackerman; other CO-PIs: Christina Birkel, Kyle Biegasiewics, Matthias Heyden, Don Seo

MURI: Living Electronics for Biologically-Enhanced Sensing, Computing and Signal Transmission
6/1/2018-5/31/2023
Office of Naval Research to University of Southern California (ASU as subcontract);
Award Amount (to Jones): $829,998
Role: Co-PI; PI: M. El-Naggar (University of Southern California); other Co-PIs: Chris Voigt (MIT, Jeffrey Gralnick (UMN), Daniel Bond (UMN), James Boedicker (USC), Cullen Buie (MIT), and Matt Lew (WUSTL)

From Carbon Chains to Pseudocarbynes: A New Class of Materials
7/1/2018-6/30/2022
W. M. Keck Foundation;
Total Award Amount: $1,000,000
Role: PI (25%); co-PIs: Peter Buseck, Scott Sayres, Timothy Steimle, and Pilarisetty Tarakeshwar

EFR Center for Biological Electron Transfer and Catalysis (BETCy)
8/1/2014-6/30/2021
Department of Energy to Washington State University (ASU as subcontract)
Total Award: $12,500,000; Award Amount (to Jones): $875,000
Role: Co-PI (7%); PI: John Peters (WSU); other Co-PIs: co-PIs: Michael Adams (UGA), Brian Bothner (Montana State), Eric Boyd (Montana State), Ross Carlson (Montana State), Caroline Harwood (Univerity of Washington), Paul King (NREL), Pin-Ching Maness (NREL), Anne-Frances Miller (University of Kentucky), Lance Seefeldt (Utah State)

ASU Advance
9/1/2018-8/31/2021
NSF ADVANCE grant
Total Award Amount: $2,999,743
Role: Senior Personnel; PI: Elizabeth Wentz with many co-PIs and senior personnel.

Completed Extramural Research Funding

Plug and Play Photosynthesis for RuBisCO Independent Fuels
6/1/2014-5/31/2019

National Science Foundation;
Award Amount (to Jones): $465,247
Role: PI, co-PIs: J. Golbeck (Pennsylvania State University), D. Kramer (Michigan State University), I. Matsumura (Emory University School of Medicine; British Team: L Cronin (PI) (Glasgow University), co-PIs: T. Bayer (Imperial College) and T. Bibby (Univ. Southampton)—*co-PI awards are separate financially*

Early Career Award: Utilization of protein film electrochemistry to characterize the mechanisms imparting aerorotolerance and bidirectionality in soluble, multimeric [NiFe]-hydrogenases
6/1/2012-5/31/2018
Department of Energy (CAREER)
Award Amount (to Jones): $750,000
Role: PI (100%)

IGERT: Solar Utilization Network (SUN)
7/1/2012-6/30/2017
National Science Foundation IGERT award
Total Award Amount: $3,498,193
Role: Faculty Participant; PI: W. Vermaas; 16 additional ASU co-PIs/participants

Plug and Play Photosynthesis for RuBisCO Independent Fuels
3/15/2011-2/28/2015
National Science Foundation;
Award Amount (to Jones): $457,620
Role: PI, co-PIs: J. Golbeck (Pennsylvania State University), D. Kramer (Michigan State University), I. Matsumura (Emory University School of Medicine; British Team: L Cronin (PI) (Glasgow University), co-PIs: T. Bayer (Imperial College) and T. Bibby (Univ. Southampton)—*co-PI awards are separate financially*

EFR Center for Bioinspired Solar Fuel Production
7/1/2009-6/30/2014
Department of Energy
Total Award Amount: $14,754,000
Role: Co-PI (9%); PI: D. Gust; 9 additional ASU co-PIs.

Engineering oxidoreductases: Utilization of an unnatural amino acid to create artificial hydrogenases
11/1/2007-8/31/2011
Air Force Office of Sciences Research (CAREER)
Award Amount: $351,244
Role: PI (100%)

Development of a sophomore course 'Introduction to Sustainable Chemistry
3/1/2009-12/31/2010
Camille and Henry Dreyfus Foundation (Special Grant in the Chemical Sciences)
Award Amount: $25,000
Role: PI (100%)

Engineering membrane proteins for electrocatalytic CO_2 reduction
7/1/2008-6/30/2009
Science Foundation of Arizona
Total Award Amount: $100,000
Role: Co-PI (50%); PI: G. Ghirlanda

RESEARCH COLLABORATORS AND CO-AUTHORS

*This is a complete list of those with whom I have undertaken research, published, or received funding in the last 48 months.

Arizona State University: Ara Austin (SMS), Laura Ackerman (SMS), Kyle Biegasiewicz (SMS), Christina Birkel (SMS), Peter Buseck (SMS); Roberto Gaxiola (SOLS); Tom Groy (KE); Matthias Heyden (SMS), Barbara Munk (SMS), Vladimiro Mujica (SMS); Kevin Redding (SMS); Robert Ros (Physics); Scott Sayres (SMS), Don Seo (SMS), Timothy Steimle (SMS); Pilarisetty Tarakeshwar (SMS); Ryan Trovitch (SMS)

Other Institutions: Michael W. W. Adams (University of Georgia); Thomas S. Bibby (University of Southampton); David Beratan (Duke University); James Boedicker (University of Southern California); Brian Bothner (Montana State University); Eric Boyd (Montana State University); Kara Bren (University of Rochester); Cullen Buie (MIT); Morris Bullock (Pacific Northwest National Lab); J. G. Chen (Columbia University); Richard Crooks (University of Texas at Austin); Leroy Cronin (University of Glasgow); Marcetta Darensbourg (Texas A&M); Brian Dyer (Emory University); Mohammed El-Naggar (University of Southern California); Bojana Ginovska (Pacific Northwest National Laboratory); John Golbeck (Pennsylvania State University); Jeffrey Gralnick (University of Minnesota); Caroline Harwood (University of Washington); Brian Hoffman (Northwestern University); Patrick Holland (Yale University); M. Janik (Pennsylvania State University); M. G. Kanatzidis (Northwestern University); Paul King (National Renewable Energy Laboratory); David Kramer (Michigan State University); K. M. Lancaster (Cornell University); Matthew Lew (Washington University in St. Louis); Carolyn Lubner (National Renewable Energy Laboratory); S. V. Lymer (Brookhaven National Laboratory); Pin-Ching Maness (National Renewable Energy Laboratory); Ichiro Matsumura (Emory University); Shelly Minteer (University of Utah); Anne-Frances Miller (University of Kentucky); David Mulder (National Renewable Energy Laboratory); John Peters (Washington State University); P. Pfromm (Washington State University); Simone Raugei (Pacific Northwest National Laboratory); W. F. Schneider (University of Notre Dame); Richard Schrock (MIT); Lance Seefeldt (Utah State University)

PUBLICATIONS

Total Citations: 3052; Average Citations per publication: 75
Google Scholar H-Index (April 2021) = 27 (See full profile here: https://scholar.google.com/citations?user=Sc3kwnQAAAAJ&hl=en)
"IF" lists the 2018 impact factor for the journal. The average impact factor for my publications in aggregate is 7.5.
"Cites" refers to the number of citation of a publication listed in Google Scholar on 4/11/21. My full citation record can be found at: shorturl.at/cehiy

Boxed region describes my role for papers since coming to ASU in 2007.

* indicates Jones as senior (corresponding) author	Underline denotes graduate students in Jones Group.	Double-underline indicates Post-doctoral fellows in Jones Group.	Dotted underline indicates undergraduate in Jones Group	† indicates other ASU graduate/undergraduate student

Peer-Reviewed Journal Articles

42. S. Garrett Williams, J. H. Artz, D. W. Mulder, M. W. Ratzloff, A. Samuel, J. W. Peters, P. W. King, and **A. K. Jones***, [FeFe]-Hydrogenase III from *Clostridium pasteurianum* functions only in a narrow potential range, BBA., **2021**, *in review*.

Designed research project and supervised all electrochemical work. Drafted and revised manuscript.

41. H. Kim, P. Tarakeshwar, N. Fujikado, K. Evraets, **A. K. Jones**, M. Meneghetti, P. Buseck, S. Sayres, Pseudocarbyones: Linear Carbon Chains Stabilized by Metal Clusters, J. Phys. Chem. C, **2020**, 124, 35,19355-19361, https://doi.org/10.1021/acs.jpcc.0c05014.

Participated in designing research project, designing and interpreting characterization experiments, and revising manuscript.

40. M. A. Thirumurthy, A. Hitchcock, A. Cereda, J. Liu, M. Chavez, B. L. Doss, P., R. Ros, M. Y. El-Naggar, J. T. Heap, T. S. Bibby, **A. K. Jones***, Photocurrent production by the cyanobacterium Synechocystis sp. PCC 6803 is independent of type IV pili, Frontiers in Microbiology, **2020**, 11, 1344, for special collection on "Exploring the Growing Role of Cyanobacteria in Industrial Biotechnology and Sustainability", doi: 10.3389/fmicb.2020.01344 (cites 4)

Designed research project and supervised all electrochemical work. Drafted and revised manuscript.

39. M. A. Thirumurthy, **A. K. Jones***. Geobacter cytochrome OmcZs binds riboflavin: implications for extracellular electron transfer, Nanotechnology, **2020**, 31 124001, https://doi.org/10.1088/1361-6528/ab5de6 (IF 3.399; cites 6)

Focus Issue on Extracellular Electron Transfer Conduits. Designed and supervised all research. Drafted and revised manuscript.

38. J. H. Artz, O. A. Zadvornyy, D. W. Mulder, S. M. Keable, A. E. Cohen, M. W. Ratzloff, S. G. Williams, B. Ginovska, N. Kumar, J. Song, S. E. McPhillips, C. M. Davidson, A. Y. Lyubimov, N. Pence,

G. J. Schut, A. K. Jones, S. M. Soltis, M. W. W. Adams, S. Raugei, P. W. King, and J. W. Peters. Tuning catalytic bias of hydrogen gas producing hydrogenases. J. Am. Chem. Soc., **2020**, 142, 3, 1227-1235. https://doi-org.ezproxy1.lib.asu.edu/10.1021/jacs.9b08756 (IF 14.695; cites 18)

Designed and supervised electrochemical experiments. Participated in drafting and revising manuscript.

37. D. K. Haja, C-H. Wu, F. L. Poole, J. Sugar, S. G. Williams, A. K. Jones, and M. W. W. Adams. Characterization of thiosulfate reductase from *Pyrobaculum aerophilum* heterologously expressed in *Pyrococcus furiosus*. Extremophiles, **2019**, https://doi.org/10.1007/s00792-019-01112-9. (IF 1.34; cites 4)

Designed and supervised electrochemical experiments. Participated in drafting and revising manuscript.

36. J. W. Peters, D. N. Beratan, B. Bothner, R. B. Dyer, C. S. Harwood, Z. M. Heiden, R. Hille, A. K. Jones, P. W. King, Y. Lu, C. E. Lubner, S. D. Minteer, D. W. Mulder, S. Raugei, G. J. Schut, L. C. Seefeldt, M. Tokmina-Lukaszewska, O. A. Zadvornyy, P. Zhang, M. W. W. Adams, A new era for electron bifurcation, *Curr. Opin. Chem. Biol*, **2018**, 47: 32-38, DOI: 10.1016/j.cbpa.2018.07.026. (IF 4.82; cites 28)

Participated in drafting and revising manuscript especially sections concerning Complex II.

35. J. G. Chen, R. M. Crooks, L. Seefeldt, K. Bren, M. Darensbourg, P. Holland, B. Hoffman, M. J. Janik, A. K. Jones, M. Kanatzidis, P. King, K. M. Lancaster, S. Lymar, P. Pfromm, W. F. Schneider, R. R. Schrock. Beyond Fossil-Fuel-Driven Nitrogen Transformations. *Science*, **2018**, 360(6391): 873, DOI : 10.1126/science.aar6611 . (IF 41.063; cites 454)

Participated in drafting and revising manuscript especially parts considering biological transformation of nitrogen species.

34. J. H. Artz, D. W. Mulder, M. W. Ratzloff, C. E. Lubner, O. A. Zadvornyy, A. X. LeVan, S. G. Williams, M. W. W. Adams, A. K. Jones, P.W. King, J. W. Peters. Reduction Potentials of [FeFe]-Hydrogenase Accessory Iron-Sulfur Clusters Provide Insights into the Energetics of Proton Reduction Catalysis. *J. Am. Chem. Soc*., **2017**, 139(28): 9544-9550, DOI: 10.1021/jacs.7b02099. (IF 14.695; cites 27)

Designed and analyzed experiments. Participated in drafting and revising manuscript.

33. S. Roy, J. A. Laureanti, T. L. Groy, A. K. Jones*. Synthesis and electrocatalytic activity of [FeFe]-H_2ase model complexes with non-innocent chelating nitrogen-donor ligands. *Eur. J. Inorg. Chem*., **2017**, (23): 2941-2950. (IF 2.578; cites 8)

Featured cover article. Designed research, interpreted results, wrote and edited the majority of the paper.

32. C. E. Lubner, D. P. Jennings, D. W. Mulder, G. J. Schut, O. A. Zadvornyy, J. Hoben, M. Tokmina-Lukaszewska, L. Berry, D. Nguyen, G. L. Lipscomb, B. Bothner, A. K. Jones, A.-F. Miller, P. W. King, M. W. W. Adams, J. W. Peters. Mechanistic Insights into Energy Conservation by Flavin-Based Electron Bifurcation. *Nat. Chem. Biol*., **2017**, 13(6):655-659, DOI: 10.1038/nchembio.2348. (IF 13.942; cites 67)

Designed and supervised electrochemical experiments. Participated in drafting and revising manuscript.

31. Raja Pal[†], Joseph A. Laureanti, Thomas L. Groy, Anne K. Jones*, Ryan J. Trovitch*. Hydrogen production from water using a bis(imino)pyridine molybdenum electrocatalyst. *Chem. Commun.*, **2016**, 52: 11555-11558, **DOI**: 10.1039/c6cc04946j . (IF 6.164; cites 10)

The complex was designed and prepared by the group of RJT. Designed and supervised electrochemical experiments. Participated in drafting and revising manuscript.

30. J. W. Peters, A.-F. Miller, A. K. Jones, P. W. King, M. W. W. Adams. Electron Bifurcation. *Cur. Opin. Chem. Biol*., **2016**, 31: 146-152, **DOI**: 10.1016/j.cpba.2016.03.007. (IF: 4.82; cites 87)

This is a review article on the recently discovered biological energy conservation mechanism now referred to as electron bifurcation. I wrote the section describing gating in this process.

29. P. Kwan, C. L. McIntosh, D. P. Jennings, R. C. Hopkins, S. K. Chandrayan, C.-H. Wu, M. W. W. Adams, A. K. Jones*. The [NiFe]-Hydrogenase of *Pyrococcus furiosus* Exhibits A New Type of Oxygen-Tolerance. *J. Am. Chem. Soc.* **2015**, 137(42): 13556-13565, **DOI:** 10.1021/jacs.5b07680. (IF 14.695; cites 29)

Designed research, interpreted results, wrote and edited the majority of the paper in collaboration with MWWA. Enzyme purified in the group of MWWA.

28. S. Roy, T.-A. D. Nguyen, L. Gan, A. K. Jones*. Biomimetic peptide-based models of [FeFe]-hydrogenases: Utilization of phosphine-containing peptides. *Dalton Trans*., **2015**, 44: 14865-14876, DOI: 10.1039/C5DT01796C. (IF 4.052; cites 31)

Designed research, interpreted results, wrote and edited the majority of the paper.

27. T. K. Mukhopadhyay[†], N. L. MacLean[†], L. Gan, D. C. Ashley, T. L. Groy, M.-H. Baik*, A. K. Jones*, R. J. Trovitch*. Carbon Dioxide Promoted H^+ Reduction Using a Bis(imino)pyridine Manganese Electrocatalyst. *Inorg. Chem*., **2015**, 54(9): 4475-4482, 10.1021/acs.inorgchem.5b00315. (IF 4.850; cites 40)

The study was initially conceived by R. J. Trovitch and synthetic work undertaken in his group. M-H Baik led the DFT studies. My group helped design and complete the electrochemical studies. In addition, I was engaged in writing and editing the paper.

26. L. Gan, T. L. Groy, P. Tarakeshwar, S. K. S. Mazinani[†], J .Shearer, V. Mujica, and A. K. Jones*. A [NiFe] phosphine Complex as a Fast and Efficient Hydrogen Production Catalyst, *J. Am. Chem. Soc.*, **2015**, 137(3), 1109-1115. (IF 14.695; cites 120)

Designed research, interpreted results, wrote and edited the majority of the paper. DFT calculations performed by the group of V. Mujica.

25. S. Roy, S. K. S. Mazinani[†], T. L. Groy, L. Gan, P. Tarakeshwar, V. Mujica, A. K. Jones*. Catalytic Hydrogen Evolution by Fe(II) Carbonyls Featuring a Dithiolate and a Chelating Phosphine, *Inorg. Chem*., **2014**, 53(17), 8919-8929. (IF 4.850; cites 37)

Designed research, interpreted results, wrote and edited the majority of the paper. DFT calculations performed by the group of V. Mujica.

24. A. Cereda, A. Hitchcock, M. D. Symes, L. Cronin, T. S. Bibby, A. K. Jones*. A Bioelectrochemical Approach to Characterize Extracellular Electron Transfer by *Synechocystis* sp. PCC6803, *PLOS One*, **2014**, 9(3), e91484. (IF 2.776; cites 54)

Designed research, interpreted results, wrote and edited the majority of the paper. Molecular biology work done in the group of T. S. Bibby.

23. A. Dutta, M. Flores, S. Roy, J. Schmitt, G. A. Hamilton†, H. E. Hartnett, J. Shearer, A. K. Jones*. Sequential Oxidations of the Thiolates and the Cobalt Metallocenter in a Synthetic Metallopeptide: Implications for the Biosynthesis of Nitrile Hydratase, *Inorg. Chem*. **2013**, 52(9), 5236-5245 **DOI:** 10.1021/ic400171z. (IF 4.85; cites 15)

Designed research, interpreted results, wrote and edited the majority of the paper. Mass spectrometry done in the group of H. Hartnett. XAS spectroscopy completed in collaboration with J. Shearer. EPR spectroscopy undertaken in collaboration with M. Flores.

22. S. Roy, T. L. Groy, A. K. Jones*. Artificial hydrogenases: Asymmetrically disubstituted diiron model complex with a redox active 2,2'-bipyridyl ligand, *Dalton Trans*. **2013**, 42, 3843-3853 **DOI:** 10.1039/C2DT32195E. (IF 4.052; cites 52)

Designed research, interpreted results, wrote and edited the majority of the paper. X-ray crystal structure solved by Dr. T. L. Groy.

21. A. Dutta, G. A. Hamilton†, H. E. Hartnett, A. K. Jones*. Construction of Heterometallic Clusters in a Small Peptide Scaffold as [NiFe]-hydrogenase models: Development of a Synthetic Methodology. *Inorg. Chem.* **2012**; 51(18), 9580-9588 http://dx.doi.org/10.1021/ic2026818 (IF 4.85; cites 21)

Designed research, interpreted results, wrote and edited the majority of the paper. Mass spectrometry done in group of H. Hartnett.

20. I. Ashur, A. K. Jones*. Immobilization of azurin with retention of its native electrochemical properties at alkylsilane self-assembled monolayer modified indium tin oxide. *Electrochim. Acta*. **2012,** 85, 169-174, DOI: 10.1016/j.electacta.2012.08.044 (IF 5.383; cites 12)

Designed research, interpreted results, wrote and edited the majority of the paper.

19. I. Ashur, O. Schulz†, C. McIntosh, I. Pinkas, R. Ros, A. K. Jones*. Transparent gold as a platform for unmediated protein spectroelectrochemistry: investigation of cytochrome *c* and azurin. *Langmuir*. **2012**, 28(13), 5861-5871. http://pubs.acs.org/doi/abs/10.1021/la300404r (IF 3.683; cites 22)

Designed research, interpreted results, wrote and edited the majority of the paper. AFM experiments completed in group of R. Ros.

18. P. Kwan, D. Schmitt†, A. M. Volosin†, C. L. McIntosh, D.-K. Seo, A. K. Jones*. Spectroelectrochemistry of cytochrome *c* and azurin immobilized in nanoporous antimony tin oxide. *Chem. Commun.* **2011**, 47, 12367-12369.
http://pubs.rsc.org/en/content/articlelanding/2011/cc/c1cc14881h (IF 6.164; cites 41)

Designed research, interpreted results, wrote and edited the majority of the paper. ATO synthesized in group of D. Seo.

17. C. L. McIntosh, F. Germer, R. Schulz, J. Appel, A. K. Jones*. The [NiFe]-hydrogenase of the cyanobacterium *Synechocystis* sp. PCC 6803 is working bidirectionally. *J. Am. Chem. Soc.* **2011**, 133(29), 11308-11319. http://pubs.acs.org/doi/abs/10.1021/ja203376y (IF 14.695; cites 96)

Designed research, interpreted results, wrote and edited the majority of the paper. Enzyme purified in group of R. Schulz and J. Appel.

16. S. Roy, S. Shinde†, G. A. Hamilton†, H. E. Hartnett, A. K. Jones***.** Artificial [FeFe] hydrogenase: On resin modification of an amino acid to anchor a diiron-hexacarbonyl cluster in a peptide framework. *Eur. J. Inorg. Chem.* **2011**, 7, 1050-1055. (Hydrogenase special issue) (IF 2.578; cites 30)

Designed research, interpreted results, wrote and edited the majority of the paper. Mass spectrometry done in group of H. Hartnett.

15. G. Winter, S. Dökel, N. Krauss, A. K. Jones, W. Höhne, B. Friedrich. Crystallization and preliminary X-ray crystallographic analysis of the [NiFe] hydrogenase maturation factor HypF1 from *Ralstonia eutropha* H16, *Acta Cryst. F*, **2010**, 66(part 4), 452-455. (IF 1.199; Cites 6)

Designed research, crystallized protein, minor editing of the paper.

14. A. K. Jones*, B. R. Lichtenstein, A. Dutta, G. Gordon, P. L. Dutton. Synthetic hydrogenases: Incorporation of an iron carbonyl thiolate into a designed peptide, *J. Am. Chem. Soc.* **2007**, 129(48), 14844-14845. (IF 14.695; cites 97)

Designed research, completed experiments, interpreted results, wrote and edited the majority of the paper.

13. K. L. Pankhurst, C. G. Mowat, E. L. Rothery, J. M. Hudson, A. K. Jones, C. S. Miles, M. D. Walkinshaw, F. A. Armstrong, G. A. Reid, and S. K. Chapman. A proton delivery pathway in the soluble fumarate reductase from *Shewanella frigidimarina*, *J. Biol. Chem.*, **2006**, 281(29), 20589-20597. (IF 4.106; cites 43)

12. T. Burgdorf, O. Lenz, T. Buhrke, E. van der Linden, A. K. Jones, S. Albracht, and B. Friedrich. [NiFe]-hydrogenases of Ralstonia eutropha H16: modular enzymes for oxygen-tolerant biological hydrogen oxidation, *J. Mol. Microbiol. Biotechnol.*, **2005**, 10, 181-196. (IF 1.462; cites 226)

11. G. Winter, T. Buhrke, O. Lenz, A. K. Jones, M. Forgber, and B. Friedrich. A model system for [NiFe]-hydrogenase maturation studies. Purification of an active site-containing hydrogenase large subunit without small subunit. *FEBS Lett.*, **2005**, 579(20), 4292-4296. (IF 2.999; cites 45)

10. G. Winter, T. Buhrke, A. K. Jones, B. Friedrich. The role of the active-site coordinating cysteine residues in the maturation of the H_2-sensing [NiFe] hydrogenase from *Ralstonia eutroph* H16. *Arch. Microbiol.*, **2004**, 182(2-3), 138-146. (IF 1.808; cites 9)

9. A.K. Jones, O. Lenz, A. Strack, T. Buhrke, and B. Friedrich. Hydrogenase active site biosynthesis: Identification of Hyp protein complexes in *Ralstonia eutropha*. *Biochemistry* **2004**, 43(42), 13467-13477. (IF 2.997; cites 58)

8. A. K. Jones, S. E. Lamle, H. R. Pershad, K. A. Vincent, S. P. J. Albracht, and F. A. Armstrong. Enzyme electrokinetics: electrochemical studies of the anaerobic interconversions between active and inactive states

of *Allochromatium vinosum* [NiFe]-hydrogenase**.** *J. Am. Chem. Soc*. **2003**; 125(28), 8505-14. (IF 14.695; cites 176)

7. C. Leger, S. J. Elliott, K. R. Hoke, L. J. C. Jeuken, A. K. Jones, and F. A. Armstrong. Enzyme electrokinetics: using protein film voltammetry to investigate redox enzymes and their mechanisms. *Biochemistry*; **2003**; 42(29), 8653-62. (IF 2.997; cites 286)

6. C. Leger C, A. K. Jones, W. Roseboom, S. P. J. Albracht, and F. A. Armstrong. Enzyme electrokinetics: hydrogen evolution and oxidation by *Allochromatium vinosum* [NiFe]-hydrogenase. *Biochemistry*, **2002**; 41(52), 15736-46. (IF 2.997; cites 126)

5. C. Leger, A. K. Jones, S. P. J. Albracht, and F. A. Armstrong. Effect of a Dispersion of Interfacial Electron Transfer Rates on Steady State Catalytic Electron Transport in [NiFe]-hydrogenase and Other Enzymes. *J. Phys. Chem. B.,* **2002**; 106(50); 13058-13063. (IF 2.923; cites 227)

4. A. K. Jones, E. Sillery, S. P. J. Albracht, and F. A. Armstrong. Direct comparison of the electrocatalytic oxidation of hydrogen by an enzyme and a platinum catalyst. *Chem Commun*, **2002**; (8):866-7. (IF 6.164; cites 168)

3. L. J. C. Jeuken, A. K. Jones, S. K. Chapman, G. Cecchini, and F. A. Armstrong. Electron-transfer mechanisms through biological redox chains in multicenter enzymes. *J. Am. Chem. Soc*., **2002**; 124(20):5702-13. (IF 14.695; cites 124)

2. F. A. Armstrong, R. Camba, H. A. Heering, J. Hirst, L. J. C. Jeuken, A. K. Jones, C. Leger, and J. P. McEvoy. Fast voltammetric studies of the kinetics and energetics of coupled electron-transfer reactions in proteins. *Faraday Discuss*., **2000**; (116):191-203; discussion 257-68. (IF 3.712; cites 91)

1. A. K. Jones, R. Camba, G. A. Reid, S. K. Chapman, and F. A. Armstrong. Interruption and Time Resolution of Catalysis by a Flavoenzyme Using Fast Scan Protein Film Voltammetry. *J. Am. Chem. Soc.*, **1999**; 122(27): 6494-6495. (IF 14.695; cites 35)

Commentaries

S. Roy and A. K. Jones*. Metalloenzymes: Cutting out the middleman. Nature Chem. Biol. **2013**, 9: 603-605, doi:10.1038/nchembio.1322

This is a commissioned commentary on primary research. Wrote and edited the article.

Manuscripts in Preparation (pre-prints available upon request)

43. D. J. Martin, S. G. Williams, A. K. Jones*, D. Barondeau*. An [FeFe]-hydrogenase Biased to Hydrogen Oxidation. To be submitted to *J. Am. Chem. Soc*.

This paper describes the electrocatalytic properties of a novel [FeFe]-hydrogenase. Designed research, interpreted results, and wrote the majority of the article.

44. Z. Nazemi, P. Kwan, C. L. McIntosh, D. P. Jennings, R. C. Hopkins, S. K. Chandrayan, C.-H. Wu, M. W. W. Adams, A. K. Jones*. Catalytic Bias of the Soluble Hydrogenase I from *Pyrococcus furiosus*. To be submitted to *J. Biol. Chem.*

This paper describes the catalytic bias of PfSHI and its temperature dependence. Designed research, interpreted results, and wrote the majority of the article.

45. J. A. Laureanti, T. L. Groy, A. Debnath, S. K. S. Mazinani†, V. Mujica, A. K. Jones*. Hydrogen evolution from mono-Fe carbonyls with chelating bis-phosphine and benezene-1,2-dithiol as function [FeFe]-hydrogenase mimics. To be submitted to *Dalton Trans*.

Describes synthesis and characterization of a synthetic catalyst. Designed research, interpreted results, and wrote the majority of the article.

46. J. A. Laureanti, C. Gisriel†, K. E. Redding, A. K. Jones*. Photosynthetically driven bio-electrosynthesis of hydrogen using *Heliobacterium modesticaldum*. To be submitted to *BBA*.

Describes electrosynthesis of hydrogen by an anaerobic phototroph. Designed research, interpreted results, and edited the article.

Edited Book Chapters

5. J. H. Artz, D. W. Mulder, S. Poudel, D. Colman, G. J. Schut, S. G. Williams, A. K. Jones, M. W. W. Adams, E. S. Boyd, P. W. King, J. W. Peters. Structure-Function of [FeFe]- and {NiFe]-Hydrogenases: An Overview of Diversity, Mechanism, Maturation, and Bifurcation, to appear in Microalgal Hydrogen Production. Edited by M. Seibert, Roy. Soc. Chem. 31-66; 2019.

This is a review article for which I contributed to discussions of [FeFe]- and [NiFe]-hydrogenase mechanism.

4. J. A. Laureanti and A. K. Jones*. Photosynthetic Microbial Fuel Cells, in *Biophotoelectrochemistry: From Bioelectrochemistry to Biophotovoltaics* in the Advances in Biochemical Engineering/Biotechnology series. Edited by L. Jeuken, Springer, 159-175; 2017.

This is a review article for which I did all of the writing and the majority of the editing. The J. A. Laureanti was involved in literature searching to identify relevant sources and preparation of figures.

3. A. K. Jones*, A. Debnath, L. Gan, D. Jennings, J. Laureanti. Biomimetic Complexes for the Production of Dihydrogen and Reduction of Carbon Dioxide. in "*Homo- and Heterobimetallic Complexes in Catalysis: Cooperative Catalysis"* in the Topic in Organometallic Chemistry series. Edited by P. Kalck, Springer 2015.

This is a review article for which I did all of the writing and the majority of the editing. The students and post-doc were involved in literature searching to identify relevant sources and preparation of figures.

2. A. K. Jones*, C. L. McIntosh, A. Dutta, P. Kwan, S. Roy, S. Yang. Bioelectrocatalysis of hydrogen oxidation and production. In *Enzymatic fuel cells: From fundamentals to applications*. Edited by H. Luckarift, G. Johnson and P. Attanasov, John Wiley and Sons, Inc. 2014.

This is a review article for which I did all of the writing and the majority of the editing. The students were involved in literature searching to identify relevant sources and preparation of figures.

1. A. K. Jones, H. R. Pershad, B. Faber, S. P. J. Albracht, and F. A. Armstrong. The active/inactive interconversion of an [NiFe]-hydrogenase at an electrode. In *Hydrogen as a Fuel: Learning from Nature*. Edited by Cammack, R., Frey, M., Robson, R. London and New York: Taylor and Francis 2001: 88-92.

Non-reviewed popular science/outreach/Public reports

1. A. K. Jones*, T. S. Bayer, T. S. Bibby, L. Cronin, J. Golbeck, D. M. Kramer, I. Matsumura, Plug and play photosynthesis, *Chemistry and Industry* 2012, issue 9, http://www.soci.org/Chemistry-and-Industry/CnI-Data/2012/9/Plug-and-play-photosynthesis.aspx.

This is a popular science hypothesis paper based on ideas developed by all of the co-authors. I wrote the first draft, coordinated and undertook major editing, and corresponded with the editor.

2. A. K. Jones, Interviewee featured in Microbeworld Podcast Episode 59, "Harvesting Excess energy from cyanobacteria": http://www.microbeworld.org/index.php?option=com_content&view=category&layout=blog&id=36&Itemid=146

3. Sustainable Ammonia Synthesis – Exploring the scientific challenges associated with discovering alternative, sustainable processes for ammonia production, DOE Roundtable Report, https://science.osti.gov/bes/Community-Resources/Reports

4. Basic Research Needs for Catalysis Science Report. Department of Energy. https://science.osti.gov/bes/Community-Resources/Reports

Presentations

Oral Invited

*The first author is the presenter unless otherwise indicated.

63. A. K. Jones, RSC Workshop: Biophotoelectrochemical Systems: Solar Energy Conversion and Fundamental Investigations, Cambridge, UK, September 2022. (Delayed from April 2020 for COVID-19)

62. A.K. Jones, Hybridizing Online Curricula in Chemistry, REMOTE: the connected faculty summit, Virtual Symposium, June 2021.

61. A. K. Jones, Going the Distance: Synthetic Analogues of Microbial Nanowires, Journal of Biological Inorganic Chemistry Symposium on Energy Conversion Inspired by Bioinorganic Chemistry, Virtual Symposium, May 2021.

60. A. K. Jones, Simple Circuitry for Microbial Extracellular Electron Transfer, MRS Meeting Special Session: Smart Materials, Devices, and Systems for Interface with Plants and Microorganisms, Boston, MA, December 2019.

59. A. K. Jones, Electrocatalytic Comparison of [FeFe]-hydrogenases, Telluride Science Meeting on Biological and Bioinspired Redox Catalysts, Telluride, CO, July 2019.

58. A. K. Jones, Three Opposites? Electrocatalytic comparison of the [FeFe]-hydrogenases of *Clostridium pasteurianum*. ICH2019, 12th International Conference on Hydrogenases, Lisbon, Portugal, 31 March 2019.

57. A. K. Jones, Defining Functional Diversity of Redox Enzymes Electrochemically, ASU Center for Bioenergy and Photosynthesis, Nov 2017.

56. A. K. Jones, Electrocatalysis Diversity of Hydrogenases, Fall ACS Meeting, Washington, D. C., 22 August 2017.

55. A. K. Jones, Defining Functional Diversity of Hydrogenases Electrochemically, Telluride Science Research Conference: Control of Proton and Electron Transfers in Redox Catalysis, August 2017.

54. A. K. Jones, Renewable Energy: Storage and Solar Fuels, Durgapur Women's College, India, January 2017.

53. A. K. Jones, Defining Functional Diversity of Hydrogenase Electrochemically, Symposium on Advanced Biological Inorganic Chemistry, Kolkata, India, January 2017.

IC YOU (Inorganic Chemistry, Young, Outstanding, and Upcoming) Symposium Lecture Sponsored by the Journal Inorganic Chemistry

52. A. K. Jones, Reactivity of Soluble [NiFe]-hydrogenases, DOE Physical Biosciences PI Meeting, Maryland, October 2016.

51. A. K. Jones, Defining Functional Diversity of [FeFe]-hydrogenases electrochemically, Hydrogenase 2016, Marseille, France, July 2016.

50. A. K. Jones, Biological and Bio-Inspired Electrocatalysis: Solutions to Energy Challenges, Univ. California at Irvine, March 2016.

49. A. K. Jones, Biological and Bio-Inspired Electrocatalysis: Electrochemical Solutions to Energy Challenges, Montana State Univ., Dec 2015.

48. A. K. Jones, Plug-and-Play Photosynthesis, NSF Workshop Enhancing Photosynthesis, London, UK, November 2015.

47. A. K. Jones, DOE EFRC Meeting, Washington D. C., October 2015.

46. A. K. Jones, Reactivity of soluble [NiFe]-hydrogenases, Structure and Function of Hydrogenase Mimics, Telluride Science Workshop, July 2015.

45. A. K. Jones, Biological and Bio-Inspired Electrocatalysis: Electrochemical Solutions to Energy Challenges, Colloquium, Max Planck Institute Tuebingen, Germany, Feb 2015.

44. A. K. Jones, Defining the Catalytic Properties of Soluble [NiFe]-Hydrogenases Using Direct Electrochemistry, Metals in Biology Gordon Research Conference, California, 2015.

43. A. K. Jones, Photons to Fuel: Bio-Inspired Electrocatalysis and Artificial Photosynthesis, IméRA, Marseille, France, Oct. 2014.

42. A. K. Jones, Biological and Bio-Inspired Electrocatalysis: Electrochemical Solution to Energy Challenges, Colloquium, Emory University, Nov. 2014.

41. A. K. Jones, Electrochemical Mapping of Proteins and Pathways in *Synechocystis* sp. PCC6803, Photosynthesis Gordon Research Conference, Vermont, 2014.

40. A. K. Jones, Sequential Oxidations of the Thiolates and the Cobalt Metallocenter in a Synthetic Metallopeptide: Implications for the Biosynthesis of Nitrile Hydratase, IONiC Bioinorganic Workshop, Northwestern University, 2014.

39. A. K. Jones, Electrochemical Characterization of the Oxygen-Tolerant Soluble Hydrogenase I from *Pyrococcus furiosus*. DOE Hydrogen Program Review, Washington D. C., 2014.

38. A. K. Jones, How do you make a redox enzyme run backwards? Defining the Catalytic Properties of Soluble [NiFe]-Hydrogenases Using Direct Electrochemistry, Chemistry and Biology Interface Seminar, University of Delaware, 2014.

37. A. K. Jones, How do you make a redox enzyme run backwards? Defining the Catalytic Properties of Soluble [NiFe]-Hydrogenases Using Direct Electrochemistry, Department of Chemistry and Biochemistry Colloquium, Utah State University, 2014.

36. A. K. Jones, "What Controls Bias in Redox Enzymes: Defining the Catalytic Properties of Soluble [NiFe]-hydrogenases using Direct Electrochemistry", Electrochemistry Gordon Research Conference, Ventura, CA 2014.

35. A. K. Jones, Fast and Efficient Hydrogen Production Catalysis: Incorporating Nature's Mechanisms into Inorganic Molecules, International Photosynthesis Congress, St. Louis, MO, 2013.

34. A. K. Jones, Defining Directionality and Aerotolerance of Soluble, Multimeric [NiFe]-hydrogenases, Enzymes, Coenzymes & Metabolic Pathways Gordon Research Conference, Waterville Valley, NH, 2013.

33. A. K. Jones, Artificial hydrogenases: Utilization of peptide and redox non-innocent ligands in [FeFe] and [NiFe] complexes, ACS Meeting, New Orleans, 2013.

32. A. K. Jones, Plug and Play Photosynthesis for RuBisCO independent fuels, NSF program review for Photosynthetic Ideas Lab, Washington, D. C., 2013.

31. A. K. Jones, Redox enzymes as electrocatalysts: exploration of natural and artificial hydrogenases, Department of Chemistry, California Institute of Technology, 2012.

30. A. K. Jones, Redox Enzymes as Electrocatalysts: Exploration of Natural and Artificial Hydrogenases, Department of Chemistry, University of Glasgow, UK, 2012.

29. A. K. Jones, Redox Enzymes as Electrocatalysts: Exploration of Natural and Artificial Hydrogenases, CEA Grenoble, France, 2012.

28. A. K. Jones, Redox Enzymes as Electrocatalysts: Exploration of Natural and Artificial Hydrogenases, CNRS Marseilles, France, 2012.

27. A. K. Jones, Redox Enzymes as Electrocatalysts: Exploration of Natural and Artificial Hydrogenases, University of Utah, 2012.

26. A. K. Jones, Redox Enzymes as Electrocatalysts: Exploration of Natural and Artificial Hydrogenases, Texas A&M University, 2012.

25. A. K. Jones, Bioelectrocatalysis by bidirectional [NiFe]-hydrogenases: Mechanistic comparison to uptake enzymes, Symposium on Hydrogen production and applications, ACS Meeting, San Diego, 2012.

24. A. K. Jones, Redox Enzymes as Electrocatalysts: Exploration of Natural and Artificial Hydrogenases, California State University at Fullerton, 2012.

23. A. K. Jones, Engineering oxidoreductases for electrocatalysis: understanding the roles of residues outside the active site in controlling catalysis by hydrogenases, University of Arizona, 2012.

22. A. K. Jones, Harvesting excess high energy electrons for food or fuel, American Academy for the Advancement of Science Symposium, Vancouver, Canada, 2012.

21. A. K. Jones, Redox Enzymes as Electrocatalysts: Exploration of Natural and Artificial Hydrogenases, University of Georgia, 2012.

20. A. K. Jones, Engineering oxidoreductases: understanding the roles of residues outside the active site in controlling catalysis by hydrogenases, Emory University, 2012.

19. A. K. Jones, Bio-inspired catalysts for hydrogen oxidation and evolution. 5th Sante Fe Workshop on Materials for Energy Conversion (Topic: Bioinspired catalysts for oxygen reduction), NM, 2011.

18. A. K. Jones, Artificial Hydrogenases: Construction of peptide models for [FeFe]-hydrogenases, Main Group Chemistry Symposium, Southwest regional ACS meeting, Austin, TX, 2011.

17. A. K. Jones, Engineering oxidoreductases: understanding the roles of residues outside the active site in controlling catalysis by hydrogenases, Boston University, 2011.

16. A. K. Jones, Redox enzymes as electrocatalysts: exploration of natural and artificial hydrogenases, University of New Mexico, 2011.

15. A. K. Jones, Artificial [FeFe] hydrogenase: modifications of amino acids to create ligands for binding diiron clusters, AFOSR Bioenergy Annual Review, Washington, D. C., 2011.

14. G. Ghirlanda and A. K. Jones, Design of peptide-based catalysts: development of artificial hydrogenases, EFRC Forum, Washington, D. C., 2011.

* Joint presentation by both investigators.

13. A. K. Jones, Direct electrochemistry of the bidirectional [NiFe]-hydrogenase from *Synechocystis*, University of Southern California, 2010.

12. A. K. Jones, Exploring and Exploiting Redox Enzymes, Department of Chemistry Seminar Series, University of Nevada at Reno, 2010.

11. A. K. Jones, Engineering Oxidoreductases: Design and Synthesis of Artificial Hydrogenases, Air Force Office of Scientific Research Annual Program Review, Arlington, VA, July 2010.

10. A. K. Jones, Design and Synthesis of artificial hydrogenases. Bioenergetics symposium of the Biophysical Society Meeting, San Francisco, CA, 2010.

9. A. Dutta, A. K. Jones, Synthesis of [NiFe]-hydrogenase maquettes: a bottom-up approach fro studying metalloenzymes, Graduate Research Symposium of the Metals in Biology Gordon Research Conference, Ventura, CA, USA, 2010.

8. A. K. Jones**,** Engineering oxidoreductases: Design and Synthesis of Aritificial Hydrogenases, Air Force Office of Scientific Research Annual Program Review, Arlington, VA, 2009.

7. A. K. Jones, Exploring and Exploiting Redox Enzymes, Department of Civil, Environmental and Sustainable Engineering, Arizona State University, Tempe, AZ, 2009.

6. A. K. Jones, Exploring and Exploiting Redox Enzymes, Department of Chemistry Seminar Series, Regis College, Denver, CO, 2009.

5. A. K. Jones, Artificial Redox Enzymes, Minisymposium on redox enzymes, University of Pennsylvania School of Medicine, Philadelphia, PA, 2008.

4. A. K. Jones, Design and Synthesis of Artificial Hydrogenases. Fe-S Enzymes Gordon Research Conference, Colby-Sawyer College, New London, NH, 2008.

3. A. K. Jones, Hydrogenases: Model Redox Enzymes, Biophysics Chalk Talk, ASU, Tempe, AZ, 2008.

2. A. K. Jones, Exploring and Exploiting Redox Enzymes. Fort Lewis College, Durango, CO, 2007.

1. A. K. Jones, B. M. Discher, R. L. Koder, C. M. Moser, and P. L. Dutton, De novo design of Redox Enzymes, Monte Verita, Switzerland, 2006.

Oral Submitted

*****The first author is the presenter unless otherwise indicated.

15. S. Garrett Williams, A. K. Jones, Investigation of Catalytic Bias in [FeFe]-hydrogenases, Penn State Bioinorganic Chemistry Workshop, July 2016.

14. D. Jennings, A. K. Jones, Electrocatalysis by a Bifurcating Transhydrogenase, ACS National Meeting, March 2016.

13. J. A. Laureanti, C. Gisriel, K. Redding, A. K. Jones, Photo-electrochemical Hydrogen Production by Heliobacterium modesticaldum. Western Regional Photosynthesis Meeting, Jan 2016.

12. A. K. Jones, L. Gan, S. Roy, S. Mazinani, P. Tarakeshwar, V. Mujica, T. Groy, Biomimetic Models of Hydrogenases: Impact of Redox-Active Ligands, International Conference of Bioinorganic Chemistry, Grenoble, France, 2013.

11. A. K. Jones, Defining Directionality and Aerotolerance in Soluble, Biodirectional [NiFe]-hydrogenases using Protein Film Electrochemistry, International Hydrogenase Conference, Szeged, Hungary, 2013.

10. A. K. Jones, Fast and Efficient hydrogen production catalysis via a bio-inspired [NiFe] coordination complex, EFRC Symposium, Washington D. C., 2013.

9. S. Roy, A. K. Jones, Artificial [FeFe]-Hydrogenases: Synthesis and Characterization of Diiron-polycarbonyl Clusters in Peptide Scaffolds Using Artificial Amino Acids. Organometallic Chemistry Gordon Research Symposium, Rhode Island, 2012.

8 A. Dutta, G. Kodis, T. Groy, A. K. Jones. Photoactive, sulfur bridged, intramolecular [NiRu(bpy)$_2$] dyads for artificial photosynthesis: Comparison of coordination by peptide or a small tetradentate ligand. Renewable Energy: Solar Fuels Gordon Research Symposium, Tuscany, Italy, 2012.

7. A. K. Jones, Artificial hydrogenases: Construction of peptide based models of hydrogenases. 9th International Hydrogenase Conference. Uppsala, Sweden. 2010.

6. A. Dutta, A. K. Jones**,** Synthesis of [NiFe]-hydrogenase maquettes: a bottom-up approach for studying metalloenzymes, Symposium on Research in Interdisciplinary Science & Engineering, ASU, Tempe, AZ 2008.

5. C. McIntosh, J. Cordova†, G. Ghirlanda, A. K. Jones**.** Electrocatalytic reduction of carbon dioxide by an artificial transmembrane protein, Symposium on Research in Interdisciplinary Science & Engineering, ASU, Tempe, AZ, 2008.

4. N. Teodori, A. K. Jones**.** Modeling of [FeFe]-hydrogenases via artificial peptides, Symposium on Research in Interdisciplinary Science & Engineering, ASU, Tempe, AZ, 2008.

3. A. Dutta, A. K. Jones. Synthesis of hydrogenase maquettes: Bottom-up approach for studying metalloenzymes. Life and Earth Sciences Graduate Symposium, ASU, Tempe, AZ, USA, 2008.

2. C. McIntosh, J. Cordova†, G. Ghirlanda, A. K. Jones. Generation of a transmembrane catalyst for efficient carbon dioxide (CO_2) electroreduction. Life and Earth Sciences Graduate Symposium, ASU, Tempe, AZ, USA, 2008.

1. A. K. Jones, B. R. Lichtenstein, P. L. Dutton. Synthetic hydrogenases: Incorporation of an iron carbonyl thiolate into a designed peptide. 13th International Conference on Biological Inorganic Chemistry, Vienna, Austria, 2007.

Posters Submitted

*The first author is the presenter unless otherwise indicated.

41. A. K. Jones. Inorganic Reaction Mechanisms Gordon Research Conference, Galveston, TX, March 2017.

40. S. G. Williams, J. Artz, S. Poudel, D. Mulder, M. Ratzloff, P. King, E. Boyd, J. Peters, A. K. Jones*. Electrochemical Comparison of the [FeFe]-hydrogenases from *Clostridium pasteurianum*. Metals in Biology Gordon Research Conference, Ventura, CA, 2017.

39. M. A. Thirumurthy, A. K. Jones*. Assembly of Redox Proteins into Supramolecular Nanofibers. Penn State Bioinorganic Workshop, 2016.

38. S. G. Williams, J. Artz, D. Mulder, P. King, J. Peters, A. K. Jones*. Insights into the determinants of catalytic bias using protein film electrochemistry. DOE EFRC Meeting, Washington D. C., 2015.

37. J. Laureanti, C. Gisriel†, D. Ki, S. Popat, K. E. Redding, A. K. Jones*. Photosynthetically Driven Electrosynthesis of Hydrogen by Heliobacterium modesticaldum. ISMET 2015, Tempe, AZ 2015.

36. A. K. Jones, P. Kwan, C. McIntosh, R. C. Hopkins, M. W. W. Adams. Electrochemical Characterization of the Oxygen-tolerant Soluble Hydrogenase I from *Pyrococcus furiosus*. DOE Physical Biosciences PI Meetings, Anapolis, MD, 2014.

35. A. K. Jones*, S. Roy, L. Gan, S. K. Mazinani†, T. L. Groy, P. Tarakeshwar, V. Mujica. Artificial Hydrogenases: Utilization of Redox Non-Innocent Ligands in Iron Complexes for Hydrogen Production, DOE Hydrogen Program Review, Washington, D.C., 2014.

34. S. Roy, L. Gan, T. L. Groy, S. Mazinani†, P. Tarakeshwar, V. Mujica, A. K. Jones* Fast and Efficient Hydrogen Production Catalysis: Incorporating Nature's Mechanisms into Inorganic Molecules, Scialog Conference, Tucson, AZ 2013 (Jones as Presenter).

33. P. J. Robbins, A. Hitchcock, A. Cereda, T. S. Bibby, A. K. Jones, L. Cronin, A Design Approach to Modular Biophotovoltaic Fuel Cells, International Photosynthesis Congress, St. Louis, MO, 2013.

32. A. Hitchcock, A. Cereda, A. K. Jones, T. S. Bibby. A biophotovoltaic approach to understanding extracellular electron transport by *Synechocystis* sp. PCC6803. Cyanobacteria Meeting, St. Louis, MO, 2013.

31. A. Cereda, A. Hitchcock, T. S. Bibby, A. K. Jones. A biophotovoltaic approach to mapping extracellular electron transfer by *Synechocystis* sp. PCC6803, International Photosynthesis Congress, St. Louis, MO, 2013.

30. S. Roy, T. L. Groy, A. K. Jones. Electrocatalytic hydrogen production by functional models of [FeFe]-hydrogenase with redox non-innocent ligands. International Conference of Biological Inorganic Chemistry, Grenoble, France, 2013.

29. P. Kwan, C McIntosh, R. C. Hopkins, M. W. W. Adams, A. K. Jones. Characterization of the soluble [NiFe]-hydrogenase from *Pf*SHI using protein film electrochemistry. International Hydrogenase Conference, Szeged, Hungary, 2013.

28. L. Gan, T. L. Groy, A. K. Jones. Hydrogen generation catalysis by a [NiFe] phosphine complex including a redox noninnocent ligand. Metals in Biology Gordon Research Symposium, Ventura, California, 2013.

27. A. Hitchcock, A. Cereda, M. Symes, C. Busche, J. Heap, T. Bayer, L. Cronin, T. Bibby, A. K. Jones. Plug and Play Photosynthesis: Developing electrochemical screens to understand exoelectrogenic activity in cyanobacteria, European Solar Fuels Conference, Glasgow, Scotland, 2012.

26. S. Roy, A. K. Jones, Artificial [FeFe]-Hydrogenases: Synthesis and Characterization of Diiron-polycarbonyl Clusters in Peptide Scaffolds Using Artificial Amino Acids. Organometallic Chemistry Gordon Research Symposium, Rhode Island, 2012.

25. A. Dutta, G. Kodis, T. Groy, A. K. Jones, Photoactive, sulfur bridged, intramolecular [NiRu(bpy)$_2$] dyads for artificial photosynthesis: Comparison of coordination by peptide or a small tetradentate ligand. Renewable Energy: Solar Fuels Gordon Research Conference, Tuscany, Italy, 2012.

24. C. McIntosh, R. C. Hopkins, F. Germer, R. Schulz, J. Appel, M. W. W. Adams, A. K. Jones, Characterization of oxygen tolerance of bidirectional [NiFe]-hydrogenases by protein film electrochemistry. Metals in Biology Gordon Research Conference, Ventura, CA 2012.

Presented by A. K. Jones

23. Cowgill, J.[†] Ashur, I., Jones A. K., and Redding, K. Characterization of the Fx FeS cluster in the *Heliobacter* reaction center, Western Regional Photosynthesis Conferences, CA, 2011.

22. C. McIntosh, F. Germer, J. Appel, A. K. Jones. Hydrogenases in phototrophs: Characterization of the bidirectional [NiFe]-hydrogenase from *Synechocystis* sp. PCC 6803 using protein film electrochemistry. International Conference of Bioinorganic Chemistry. Vancouver, Canada. 2011.

21. A. Dutta, A. K. Jones. Modeling [NiFe]-hydrogenase: development of a synthetic methodology for construction of heterometallic complexes in a peptide scaffold. International Conference of Bioinorganic Chemistry. Vancouver, Canada. 2011.

This poster was awarded a conference poster prize (to A. Dutta).

20. S. Roy, S. Yang, S. Shinde[†], G. A. Hamilton, H. Hartnett, A. K. Jones. Artificial hydrogenases: construction of peptide models of [FeFe]-hydrogenases. International Conference of Bioinorganic Chemistry. Vancouver, Canada. 2011.

19. C. L. McIntosh, F. Germer, J. Appel, A. K. Jones**.** Hydrogenases in phototrophs: Characterization of the bidirectional [NiFe]-hydrogenase from *Synechocystis* sp. PCC 6803 using protein film electrochemistry. Metals in Biology Gordon Research Conference. Ventura, CA, USA. 2011.

18. S. Roy, S. Shinde†, A. K. Jones. Artificial [FeFe]-hydrogenase: Synthesis of a diiron-hexacarbonyl cluster in a peptide framework. 9th International Hydrogenase Conference. Uppsala, Sweden. 2010.

17. C. L. McIntosh, F. Germer, J. Appel, A. K. Jones. Characterization of the bidirectional [NiFe]-hydrogenase from *Synechocystis* sp. PCC6803 using protein film electrochemistry. 9th International Hydrogenase Conference. Uppsala, Sweden. 2010.

16. A. Dutta, A. Hamilton†, H. E. Hartnett, A. K. Jones. Synthesis of [Ni-M_x] complexes in a peptide scaffold: Biomimetic peptidic models of [NiFe]-hydrogenases. 9th International Hydrogenase Conference. Uppsala, Sweden. 2010.

15. A. K. Jones**,** A. Dutta, S. Roy, N. Teodori. Synthesis of Hydrogenase maquettes: a bottom-up approach for studying metalloenzymes. Fe-S enzymes Gordon Research Conference, Colby-Sawyer College, NH, USA, 2010.

14. A. K. Jones**,** B. Kearl, I. Ashur, A. Dutta, C. L. McIntosh, Identification of an indium tin oxide binding peptide and its use in electrochemical applications, Electrochemistry Gordon Research Conference, Ventura, CA USA, 2010.

13. A. Dutta, A. K. Jones, Synthesis of [NiFe]-hydrogenase maquetts: a bottomr-up approach fro studying metalloenzymes, Graduate Research Symposium of the Metals in Biology Gordon Research Conference, Ventura, CA, USA, 2010.

12. A. Dutta, A. K. Jones, Synthesis of peptide based [Ni-Fe] hydrogenase: A bottom-up approach for studying metalloenzymes, Gordon Research Conference Renewable Energy: Solar Fuels, Ventura, CA, USA, 2009.

11. A. K. Jones, B. Kearl, A. Dutta, C. McIntosh. Identification of an Indium Tin Oxide binding peptide for use as an affinity tag in direct protein electrochemistry. Metals in Biology Gordon Conference, Ventura, CA, USA, 2009.

10. B. Kearl, A. K. Jones**,** Identification of an indium tin oxide binding peptide for use as an affinity tag in direct protein electrochemistry, Symposium on Research in Interdisciplinary Science & Engineering, ASU, Tempe, AZ, USA, 2008.

9. A. K. Jones, B. R. Lichtenstein, A. Dutta, G. Gordon, P. L. Dutton. Synthetic hydrogenases: Incorporation of an iron carbonyl thiolate into a designed peptide. Metals in Biology Gordon Conference, Ventura, CA, USA, 2008.

8. C.-P. Hung, P. L. Dutton, and A. K. Jones. Synthetic hydrogenases: Synthesis of a dithiol amino acid as an anchor for bimetallic clusters in peptides. 8th International Hydrogenase conference, Breckenridge, CO, USA, 2007.

7. A. K. Jones, B. R. Lichtenstein, P. L. Dutton. Synthetic hydrogenases: Incorporation of an iron carbonyl thiolate into a designed peptide. 8th International Hydrogenase conference, Breckenridge, CO, USA, 2007.

6. A. K. Jones, O. Lenz, A. Strack, T. Buhrke, and B. Friedrich. NiFe hydrogenase active site biosynthesis: Hyp protein complexes in *Ralstonia eutropha*. 7th International Hydrogenase conference, Reading, UK, 2004.

5. A. K. Jones**,** H. R. Pershad, E. Sillery, S. P. J. Albracht, and F. A. Armstrong. Insights into the catalytic cycle of [NiFe]-hydrogenases from direct electrochemistry. 10th International Conference on Bioinorganic Chemistry, Florence, Italy, 2001.

4. A. K. Jones, H. R. Pershad, B. Faber, S. P. J. Albracht, and F. A. Armstrong. The active/inactive interconversion of a [NiFe]-hydrogenase at an electrode. 6th International Conference on the Molecular Biology of Hydrogenases, Potsdam, Germany, 2000.

3. A. K. Jones**,** H. R. Pershad, B. Faber, S. P. J. Albracht, and F. A. Armstrong. The active/inactive interconversion of a [NiFe]-hydrogenase at an electrode. EUROBIC, Toulouse, France, 2000.

2. F. A. Armstrong, R. Camba, J. Hirst, A. K. Jones, and J. P. McEvoy. Applications of fast scan protein film voltammetry to examine the coupling and gating of electron transfer at active sites. 219th ACS National Meeting, San Francisco, CA, 2000.

1. A. K. Jones, K. Turner, S. K. Chapman, and F. Armstrong. Detection of transient intermediates in flavoenzyme reactions: interruption of the catalytic cycle of flavocytochrome c_3 from *Shewanella frigidimarina* using protein film voltammetry. 9th International Conference on Bioinorganic Chemistry, Minneapolis, MN, 1999.

SERVICE ACTIVITIES

Service to the School of Molecular Sciences

Associate Director of Academic Affairs (2015-2019), School of Molecular Sciences
The School of Molecular Sciences enrolls more than 1,800 undergraduate majors in chemistry and biochemistry, 150 graduate students in chemistry and biochemistry, and serves approximately 13,000 students in other majors in required courses. At the time, this position managed all of those academic programs. Key responsibilities include fiscal oversight, course planning and scheduling, supervision of academic and non-academic personnel (including annual performance reviews), and strategic planning. Key achievements include:

- Established the world's first online undergraduate degree in biochemistry which grew to enroll more than 1000 students in less than 3 years and provide more than $1.25M in revenue to SMS, per annum.
- Developed a "team" model for creation of online courses requiring consensus building among faculty. Teams consist of a mix of tenured/tenure-track faculty and teaching faculty to ensure both quality and long-term viability of offerings.
- Provided leadership and professional mentoring to staff.
- Created and funded two new clinical track faculty positions for more effective academic program management, freeing time for track faculty to focus on strategic objectives.
- Regularized department policies to ensure continuity during leadership and staff changes in countless areas including summer budgeting, academic grievances, academic integrity, evaluation of undergraduate courses for transfer credit, and determination of undergraduate scholarship and award winners.

Selected SMS Committees (since Tenure)

Chair, Undergraduate Programs Committee	2019-2020
Member, Undergraduate Programs Committee	2012-present
Chair, Committee on Assessment and Accreditation	2015-2019
SMS Liaison, State and Regional Articulation Task Forces	2015-2019
Member, Personnel and Budget Committee	2013-2014
Member, Seminar Committee	2008-2015
SMS Advisor, Barrett, the Honors College Disciplinary Advisor for Chemistry and Biochemistry	2009-2014
Member, Department Septennial Review Committee	2012-2013

Faculty Search Committees (10 with 2 as chair)

Member, School of Molecular Sciences Director Search	2020

Member, School of Molecular Sciences Director Search	2018-2019
Chair, Organic Chemistry Instructor Search	2018
Member, Assistant Professor in Chemistry and Biochemistry	2017-2018
Chair, Assistant Professor Theory of Catalysis and Interfaces	2016-2017
Member, School of Molecular Sciences Director Search	2015
Member, Assistant Professor in Energy/ Inorganic Chemistry	2010-2011
Member, Assistant Professor NMR in Biochemistry	2009-2010
Member, Chemical Education faculty search committee	2008-2009
Member, Assistant Professor NMR in Biochemistry	2007-2008

Service to Arizona State University

Vice Provost for Undergraduate Education (2020-2021), Office of the University Provost
Managing ASU's undergraduate curriculum and assessment; enhancing student success through programs such as academic advising; degree planning and major and career exploration; developing ASU's academic plan for the Arizona Board of Regent's including proposals of new academic units, programs, and campuses; and chairing ASU's undergraduate standards committee.
Key current, strategic projects include:

- Chair of University working group to outline the future use of ASU Sync including courses, degree programs, and strategic initiatives
- Management of new academic initiatives including ASU's new Innovation Quarter (Winter 2020-2021) and the Sync Teaching Showcase (Spring 2021)
- Development and implementation of a new general education program that will be required of all undergraduates
- Serving on university steering committees for student success, actionable analytics, the Learning Futures Collaboratory, and military-related student success

Select Additional ASU Service Includes

Member, College of Integrative Sciences and Arts Dean Search Committee	2020-2021
Panelist, OKED MURI Kick-off Workshop	2020
Panelist, OKED Workshop for Applying to the Keck Foundation	2019, 2020, 2021
Member, ASU Selection Committee for Goldwater, Rhodes and Marshall Scholarships	2015-present
Panelist, OKED Panel for New Researchers: How to Develop a Research Portfolio	2016
Member, ASU Selection Committee for Churchill Scholarship	2013
Member, ASU Mock Interviewer for University's Rhodes and Marshall Scholarship Candidates	2007-2009, 2013
Member, Center for Bioenergy and Photosynthesis Finance Committee	2013-2014; 2016-2018
Member, Search Committee for College of Liberal Arts and Science Search Committee College Dean	2011
Member, Committee for Strategic Planning for Center for Bioenergy and Photosynthesis	2007-2014
Reviewer, Scientific Reviewer for Maher Cancer Scholarship	2007

Service to the Profession

DOE Advisory Committees:

(reports available: https://science.osti.gov/bes/Community-Resources/Reports)

DOE Basic Research Needs in Catalysis Advisory Group.

DOE Advisory Roundtable and Report: Energy Efficient Activation of Nitrogen and Synthesis of Ammonia, 2016.

Manuscript Review for *ACS Catalysis*, *ACS Nano*, *Analytical Chemistry, Angewandte Chemie (Int. Ed.), Biochemistry, BMC Microbiology, Chemical Communications, ChemBioChem, European Journal of Inorganic Chemistry, Journal of the American Chemical Society, Journal of Biological Inorganic Chemistry, Chemical Reviews, Dalton Transactions, Electrochemistry Communications, Langmuir, Journal of Electroanalytical Chemistry, Journal of Physical Chemistry, Nature Chemical Biology, Organometallics, Physical Chemistry Chemical Physics, Plos One, Science*

Grant Review (Panels and consistent ad hoc reviews)

DOE Physical Biosciences	2017
NSF	2017
NSF	2016
NSF	2015
DOE Physical Biosciences	2013
ARPA-E	2012
ARPA-E	2011

*NSF confidentiality rules prohibit me from disclosing which panels.

Ad Hoc Proposal Reviews for: *NSF; DOE; Petroleum Research Fund; Scientific Research Support Fund (Jordan); Biotechnology and Biological Sciences Research Council (BBSRC, UK); Agence Nationale De Le Recherche (France); SLAC National Accelerator Laboratory; U.S. Army Corps of Engineers' Engineer Research and Development Center; Global Climate and Energy Project; Air Force Office of Scientific Research; Indo-US Science & Technology Forum*

Other

Member, International Advisory Committee for Organizing 13th International Hydrogenase Conference	2019-2022
***Chair**, American Chemical Society National Awards Committee	2017, 2019
Member, American Chemical Society National Awards Committee	2015-present
Panelist, ACS on Campus Career Pathways Panel	2013

*ACS confidentiality rules prohibit me from disclosing in which committee I participate.

Extramural Academic Service to the Community

Member, Rhodes Scholarship Selection Committee District 13	2017
Member, Rhodes Scholarship Selection Committee District 16	2010
Member, Rhodes Scholarship Selection Committee District 16	2009