Feng Jiao, Ph.D.
Department of Energy, Environmental, and Chemical Engineering
Director, Center for Carbon Management
Washington University in St. Louis
Office location: Brauer Hall 1003
Mailing address: 1 Brookings Drive
Brauer Hall, room 1015, St. Louis MO 63130
Email address: jiaof@wustl.edu
Group website: www.jiaogroup.org

Research Interests

The Jiao research group is steadfastly devoted to the development of cutting-edge electrochemical technologies that address pressing global issues in energy storage, chemical manufacturing, and food production. Our focus is centered on two primary objectives:

- Advancing electrochemical systems for carbon utilization by pursuing high-performance CO_2 and CO electrolysis, surpassing the efficiency of conventional fossil-based systems. This is achieved through our expertise in state-of-the-art catalyst design and the engineering of electrode-electrolyte interfaces.
- Exploring innovative synthesis methods for nanostructured materials tailored for energy applications, enabling the creation of materials exhibiting unique morphologies and compositions unattainable by current techniques.

By spearheading breakthroughs in these domains, our research group endeavors to mitigate global climate change by delivering clean, sustainable, and eco-friendly energy, chemical, and food solutions, ultimately contributing to a more responsible and greener future.

Education

Jan. 2004 – Jan. 2008	Ph.D. in Chemistry University of St Andrews, St Andrews, United Kingdom Thesis: Nanomaterials for energy storage and conversion Advisor: Prof. Peter G. Bruce
Sep. 1997 – Jul. 2001	B.S. in Chemistry, Fudan University, Shanghai, China Thesis: Catalytic oxidation of phenol using nanostructured iron oxides Advisor: Prof. Heyong He

Professional Experience

Aug. 2023 – Present	Professor, Department of Energy, Environmental, and Chemical Engineering, Washington University in St. Louis, St. Louis, MO, United States
Aug. 2023 – Present	Director, Center for Carbon Management, Washington University in St. Louis, St. Louis, MO, United States
Sept. 2021 – Jul. 2023	Professor and Graduate Program Director, Department of Chemical and Biomolecular Engineering, University of Delaware, Newark, DE, United States
Jul. 2020 – Jul. 2023	Director, Center for Catalytic Science & Technology, University of Delaware, Newark, DE, United States
Sept. 2019 – Dec. 2022	Robert Grasselli Development Professor of Chemical and Biomolecular Engineering, University of Delaware, Newark, DE, United States
Sept. 2017 – Sept. 2021	Associate Professor, Department of Chemical and Biomolecular Engineering University of Delaware, Newark, DE, United States
Sept. 2017 – Jun. 2020	Associate Director, Center for Catalytic Science & Technology University of Delaware, Newark, DE, United States
Jun. 2017 – Nov. 2017	Visiting Faculty, SUNCAT Center for Interface Science and Catalysis Stanford University, Stanford, CA, United States (Host: Prof. Jens Norskov)
Aug. 2010 – Sept. 2017	Assistant Professor, Department of Chemical and Biomolecular Engineering, University of Delaware, Newark, DE, United States

Jan. 2008 – Aug. 2010	Postdoctoral Researcher (Supervisor: Dr. Heinz Frei) Lawrence Berkeley National Laboratory, Physical Biosciences Division Berkeley, CA, United States
Sept. 2003 – Jan. 2004	Visiting scholar, School of Chemistry, University of St Andrews St Andrews, United Kingdom
Jul. 2001 – Sept. 2003	Lab assistant, Fudan University, Shanghai, China

Honors and Awards

2023 Highly Cited Researcher by Clarivate
2023 Fellow of Royal Society of Chemistry
2023 NASA Deep Space Food Challenge Phase 2 Finalist
2023 Program Chair, American Chemical Society, Energy & Fuels Division
2020 Scialog Fellow, Negative Emissions Science (NES) initiative, sponsored by the RCSA and Alfred P. Sloan Foundation
2020 Emerging Investigator, Journal of Materials Chemistry A (RSC)
2019 Robert Grasselli Development Professor of Chemical and Biomolecular Engineering (University of Delaware)
2017 Class of Influential Researchers, Industrial & Engineering Chemistry Research (ACS)
2015 Outstanding Junior Faculty Member, College of Engineering (University of Delaware)
2014 National Science Foundation CAREER Award
2011 University of Delaware Research Foundation Award
2010 American Chemical Society Petroleum Research Foundation NDI Award
2008 Material Research Society Graduate Student Award
2007 Electrochemical Society Student Research Award of the Battery Division
2007 Electrochemical Society Student Travel Award

Editorial Board

2023 – Present	Transactions of Tianjin University (Editor)
2022 – Present	Chemical Engineering Journal (Editor)
2021 – Present	Renewables (Advisory Board Member)
2020 – Present	Journal of Materials Chemistry A (Advisory Board Member)
2019 – Present	Cell Reports Physical Science (Advisory Board Member)
2019 – Present	Materials Today Sustainability (Editorial Board Member)
2018 – Present	Trends in Chemistry (Advisory Board Member)
2016 – 2020	Scientific Reports (Editorial Board Member)
2011 – 2015	Journal of Chemical Engineering & Process Technology (Editorial Board Member)

Publications

*Total citations: >**19,000**; Average citations per paper: ~**169**; H-index: **63**; Data source: Google Scholar, May. 2024.*
ORCID ID: orcid.org/0000-0002-3335-3203
Google Scholar: https://scholar.google.com/citations?user=Yk2r4x0AAAAJ&hl=en

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2. H. Tang, E. Jeng, Y. Kang, Y. Yan, B. Xu, and F. Jiao. Enhancing Hydrogen Diffusion in Catalytic Removal of Nitrate Using a Flow Reactor. Topics in Catalysis (2023). 10.1007/s11244-023-01837-0
3. B. S. Crandall, S. Overa, H. Shin, and F. Jiao. Turning Carbon Dioxide into Sustainable Food and Chemicals: How Electrosynthesized Acetate Is Paving the Way for Fermentation Innovation. Accounts of Chemical Research,56, 1505–1516 (2023). 10.1021/acs.accounts.3c00098
4. T. Yang, L. Lin, X. Lv, H. Yang, H. Feng, Z. Huang, J. Li, C. W. Pao, Z. Hu, C. H. Zhan, Y. Xu, L.-S. Zheng, F. Jiao, X. Q. Huang. Interfacial Synergy between the Cu Atomic Layer and CeO_2 Promotes CO Electrocoupling to Acetate. ACS nano 17, 8521-8529 (2023). 10.1021/acsnano.3c00817B. Hasa, Y. R. Zhao and F. Jiao. In

Situ/Operando Characterization Techniques of Electrochemical CO_2 Reduction. Annual Review of Chemical and Biomolecular Engineering 14 (2023). 10.1146/annurev-chembioeng-101121-071735
5. T. G. Feric, S. T. Hamilton, B. H. Ko, G. A. Lee, S. Verma, F. Jiao and A. H. A. Park. Highly Tunable Syngas Product Ratios Enabled by Novel Nanoscale Hybrid Electrolytes Designed for Combined CO_2 Capture and Electrochemical Conversion. Advanced Functional Materials 2210017 (2023). 10.1002/adfm.202210017
6. T. Ji, H. Zhai, C. Wang, C. M. Marin, W. C. Wilfong, Q. Wang, Y. Duan, R. Xia, F. Jiao, Y. Soong, F. Shi and M. Gray. Energy-efficient and water-saving sorbent regeneration at near room temperature for direct air capture. Materials Today Sustainability 21, 100321 (2023). 10.1016/j.mtsust.2023.100321
7. B. Seger, M. Robert and F. Jiao* Best practices for electrochemical reduction of carbon dioxide. Nature Sustainability 6, 236-238 (2023). 10.1038/s41893-022-01034-z
8. B. S. Crandall, T. Brix, R. S. Weber and F. Jiao* A Techno-economic Assessment of Green H_2 Carrier Supply Chains. Energy & Fuels 37, 1441-1450 (2023). 10.1021/acs.energyfuels.2c03616
9. B. S. Crandall and F. Jiao* Knowledge transfer between liquid-and gas-fed CO_2 electrolysis. Chem Catalysis 2, 2833-2834 (2022). 10.1016/j.checat.2022.10.009
10. B. Hasa, L. Cherniack, R. Xia, D. Tian, B. H. Ko, S. Overa, P. Dimitrakellis, C. Bae* and F. Jiao* Benchmarking anion-exchange membranes for electrocatalytic carbon monoxide reduction. Chem Catalysis 3, 100450 (2023). 10.1016/j.checat.2022.10.026
11. K. U. Hansen, L. H. Cherniack and F. Jiao* Voltage Loss Diagnosis in CO_2 Electrolyzers Using Five-Electrode Technique. ACS Energy Letters 7, 4504-4511 (2022). 10.1021/acsenergylett.2c02096
12. D. Wu, F. Jiao* and Q. Lu* Progress and Understanding of CO_2/CO Electroreduction in Flow Electrolyzers. ACS Catalysis 12, 12993-13020 (2022). 10.1021/acscatal.2c03348
13. I. E. Stephens, et al. 2022 Roadmap on low temperature electrochemical CO_2 reduction. Journal of Physics: Energy 4, 042003 (2022). 10.1088/2515-7655/ac7823
14. S. Overa, B. Crandall, B. Shrimant, D. Tian, B. H. Ko, H. Shin, C. Bae and F. Jiao* Enhancing acetate selectivity by coupling anodic oxidation in carbon monoxide electroreduction. Nature Catalysis 5, 738-745 (2022). 10.1038/s41929-022-00828-w
15. T. Ji, et al. Microwave-accelerated regeneration of a non-aqueous slurry for energy-efficient carbon sequestration. Materials Today Sustainability 19, 100168 (2022). 10.1016/j.mtsust.2022.100168
16. H. H. Heenen,* H. Shin, G. Kastlunger, S. Overa, J. A. Gauthier, F. Jiao* and K. Chan. Mechanism for acetate formation in electrochemical CO_2 reduction on Cu: Selectivity with potential, pH, and nanostructuring. Energy Environmental Science 15, 3978-3990 (2022). 10.1039/D2EE01485H
17. R. Xia, S. Overa and F. Jiao* Emerging Electrochemical Processes to Decarbonize the Chemical Industry. JACS Au 2, 1054 (2022). 10.1021/jacsau.2c00138
18. J. Wang, C. Cheng, Q. Yuan, H. Yang, F. Q. Meng, Q. H. Zhang, L. Gu, J. L. Cao, L. G. Li, S. C. Haw, Q. Shao, L. Zhang, T. Cheng, F. Jiao and X. Q. Huang* Exceptionally active and stable RuO_2 with interstitial carbon for water oxidation in acid. Chem 8, 1673 (2022). 10.1016/j.chempr.2022.02.003
19. S. Overa, B. H. Ko, Y. R. Zhao and F. Jiao* Electrochemical Approaches for CO_2 Conversion to Chemicals: A Journey toward Practical Applications. Accounts of Chemical Research 55, 638 (2022). 10.1021/acs.accounts.1c00674
20. B. H. Ko, B. Hasa, H. Shin, Y. R. Zhao and F. Jiao* Electrochemical Reduction of Gaseous Nitrogen Oxides on Transition Metals at Ambient Conditions. Journal of the American Chemical Society 144, 1258 (2022). 10.1021/jacs.1c10535
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22. E. C. Hann, S. Overa, M. Harland-Dunaway, A. F. Narvaez, D. N. Le, M. L. Orozco-Cardenas, F. Jiao* and R. E. Jinkerson* A hybrid inorganic-biological artificial photosynthesis system for energy-efficient food production. Nature Food 3, 461 (2022). 10.1038/s43016-022-00530-x
23. M. J. Cui, C. P. Yang, S. Hwang, M. H. Yang, S. Overa, Q. Dong, Y. G. Yao, A. H. Brozena, D. A. Cullen, M. F. Chi, T. F. Blum, D. Morris, Z. Finfrock, X. Z. Wang, P. Zhang, V. G. Goncharov, X. F. Guo, J. Luo, Y. F. Mo,* F. Jiao*

and L. B. Hu* Multi-principal elemental intermetallic nanoparticles synthesized via a disorder-to-order transition. Science Advances 8 (2022). 10.1126/sciadv.abm4322

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25. P. Yang, Q. S. Wu, W. Q. Xie, X. Zhang, A. Brozena, J. Zheng, M. N. Garaga, B. H. Ko, Y. M. Mao, S. M. He, Y. Gao, P. B. Wang, M. Tyagi, F. Jiao, R. Briber, P. Albertus, C. S. Wang, S. Greenbaum, Y. Y. Hu, A. Isogai, M. Winter, K. Xu, Y. Qi and L. B. Hu* Copper-coordinated cellulose ion conductors for solid-state batteries. Nature 598, 590 (2021). 10.1038/s41586-021-03885-6
26. R. Xia, D. Tian, S. Kattel, B. Hasa, H. Shin, X. B. Ma,* J. G. G. Chen* and F. Jiao* Electrochemical reduction of acetonitrile to ethylamine. Nature Communications 12, 1949 (2021). 10.1038/s41467-021-22291-0
27. R. Xia, J. J. Lv, X. B. Ma and F. Jiao* Enhanced multi-carbon selectivity via CO electroreduction approach. Journal of Catalysis 398, 185 (2021). 10.1016/j.jcat.2021.03.034
28. H. Shin, K. U. Hansen and F. Jiao* Techno-economic assessment of low-temperature carbon dioxide electrolysis. Nature Sustainability 4, 911 (2021). 10.1038/s41893-021-00739-x
29. S. Overa, T. G. Feric, A. H. A. Park* and F. Jiao* Tandem and Hybrid Processes for Carbon Dioxide Utilization. Joule 5, 8 (2021). 10.1016/j.joule.2020.12.004
30. T. Y. Li, Y. G. Yao, B. H. Ko, Z. N. Huang, Q. Dong, J. L. Gao, W. Chen, J. G. Li, S. K. Li, X. Z. Wang, R. Shahbazian-Yassar, F. Jiao* and L. B. Hu* Carbon-Supported High-Entropy Oxide Nanoparticles as Stable Electrocatalysts for Oxygen Reduction Reactions. Advanced Functional Materials 31, 2010561 (2021). 10.1002/adfm.202010561
31. B. Hasa, M. Jouny, B. H. Ko, B. J. Xu* and F. Jiao* Flow Electrolyzer Mass Spectrometry with a Gas-Diffusion Electrode Design. Angewandte Chemie-International Edition 60, 3277 (2021). 10.1002/anie.202013713
32. K. U. Hansen and F. Jiao* Hydrophobicity of CO_2 gas diffusion electrodes. Joule 5, 754 (2021). 10.1016/j.joule.2021.02.005
33. K. U. Hansen and F. Jiao* Creating the right environment. Nature Energy 6, 1005 (2021). 10.1038/s41560-021-00930-6
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36. R. Xia, S. Zhang, X. B. Ma* and F. Jiao* Surface-functionalized palladium catalysts for electrochemical CO_2 reduction. Journal of Materials Chemistry A 8, 15884 (2020). 10.1039/d0ta03427d
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45. M. Jouny, J. J. Lv, T. Cheng, B. H. Ko, J. J. Zhu, W. A. Goddard* and F. Jiao* Formation of carbon-nitrogen bonds in carbon monoxide electrolysis. Nature Chemistry 11, 846 (2019). 10.1038/s41557-019-0312-z
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47. F. Jiao* and B. J. Xu* Electrochemical Ammonia Synthesis and Ammonia Fuel Cells. Advanced Materials 31, 1805173 (2019). 10.1002/adma.201805173
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49. X. Q. Sun, Y. L. Mi, F. Jiao and X. X. Xu* Activating Layered Perovskite Compound Sr2TiO4 via La/N Codoping for Visible Light Photocatalytic Water Splitting. ACS Catalysis 8, 3209 (2018). 10.1021/acscatal.8b00369
50. J. J. Lv, M. Jouny, W. Luc, W. L. Zhu, J. J. Zhu and F. Jiao* A Highly Porous Copper Electrocatalyst for Carbon Dioxide Reduction. Advanced Materials 30, 1803111 (2018). 10.1002/adma.201803111
51. W. Luc, M. Jouny, J. Rosen and F. Jiao* Carbon dioxide splitting using an electro-thermochemical hybrid looping strategy. Energy & Environmental Science 11, 2928 (2018). 10.1039/c8ee00532j
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53. M. Jouny, W. Luc and F. Jiao* General Techno-Economic Analysis of CO_2 Electrolysis Systems. Industrial & Engineering Chemistry Research 57, 2165 (2018). 10.1021/acs.iecr.7b03514
54. M. Jouny, W. Luc and F. Jiao* High-rate electroreduction of carbon monoxide to multi-carbon products. Nature Catalysis 1, 748 (2018). 10.1038/s41929-018-0133-2
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84. Q. Lu, Y. P. Chen, W. F. Li, J. G. G. Chen, J. Q. Xiao and F. Jiao* Ordered mesoporous nickel cobaltite spinel with ultra-high supercapacitance. Journal of Materials Chemistry A 1, 2331 (2013). 10.1039/c2ta00921h
85. G. S. Hutchings, Q. Lu and F. Jiao* Synthesis and Electrochemistry of Nanocrystalline M-TiO2 (M = Mn, Fe, Co, Ni, Cu) Anatase. Journal of the Electrochemical Society 160, A511 (2013). 10.1149/2.003304jes
86. W. Deng, X. Y. Wang, F. Jiao and K. K. Zhu* A platelet-like CeO_2 mesocrystal enclosed by {100} facets: synthesis and catalytic properties. Journal of Nanoparticle Research 15 (2013). 10.1007/s11051-013-1944-3
87. V. B. R. Boppana, S. Yusuf, G. S. Hutchings and F. Jiao* Nanostructured Alkaline-Cation-Containing-MnO_2 for Photocatalytic Water Oxidation. Advanced Functional Materials 23, 878 (2013). 10.1002/adfm.201202141

88. V. B. R. Boppana, F. Jiao, D. Newby, J. Laverock, K. E. Smith, J. C. Jumas, G. Hutchings and R. F. Lobo* Analysis of visible-light-active Sn(II)-TiO_2 photocatalysts. Physical Chemistry Chemical Physics 15, 6185 (2013). 10.1039/c3cp44635b
89. S. Yusuf and F. Jiao* Effect of the Support on the Photocatalytic Water Oxidation Activity of Cobalt Oxide Nanoclusters. ACS Catalysis 2, 2753 (2012). 10.1021/cs300581k
90. B. T. Yonemoto, Z. J. Lin and F. Jiao* A general synthetic method for MPO_4 (M = Co, Fe, Mn) frameworks using deep-eutectic solvents. Chemical Communications 48, 9132 (2012). 10.1039/c2cc34020h
91. V. B. R. Boppana, H. Schmidt, F. Jiao, D. J. Doren and R. F. Lobo* Structure Analysis and Photocatalytic Properties of Spinel Zinc Gallium Oxonitrides. Chemistry-a European Journal 17, 12417 (2011). 10.1002/chem.201101196
92. V. B. R. Boppana and F. Jiao* Nanostructured MnO_2: an efficient and robust water oxidation catalyst. Chemical Communications 47, 8973 (2011). 10.1039/c1cc12258d
93. F. Jiao and H. Frei* Nanostructured manganese oxide clusters supported on mesoporous silica as efficient oxygen-evolving catalysts. Chemical Communications 46, 2920 (2010). 10.1039/b921820c
94. F. Jiao and H. Frei* Nanostructured cobalt and manganese oxide clusters as efficient water oxidation catalysts. Energy & Environmental Science 3, 1018 (2010). 10.1039/c002074e
95. Y. Ren, A. R. Armstrong, F. Jiao and P. G. Bruce* Influence of Size on the Rate of Mesoporous Electrodes for Lithium Batteries. Journal of the American Chemical Society 132, 996 (2010). 10.1021/ja905488x
96. F. Jiao and H. Frei* Nanostructured Cobalt Oxide Clusters in Mesoporous Silica as Efficient Oxygen-Evolving Catalysts. Angewandte Chemie-International Edition 48, 1841 (2009). 10.1002/anie.200805534
97. Y. Ren, F. Jiao and P. G. Bruce* Tailoring the pore size/wall thickness of mesoporous transition metal oxides. Microporous and Mesoporous Materials 121, 90 (2009). 10.1016/j.micromeso.2009.01.008
98. F. Jiao, A. H. Hill, A. Harrison, A. Berko, A. V. Chadwick and P. G. Bruce* Synthesis of ordered mesoporous NiO with crystalline walls and a bimodal pore size distribution. Journal of the American Chemical Society 130, 5262 (2008). 10.1021/ja710849r
99. F. Jiao, J. L. Bao, A. H. Hill and P. G. Bruce* Synthesis of Ordered Mesoporous Li-Mn-O Spinel as a Positive Electrode for Rechargeable Lithium Batteries. Angewandte Chemie-International Edition 47, 9711 (2008). 10.1002/anie.200803431
100. H. Hill,* F. Jiao, P. G. Bruce, A. Harrison, W. Kockelmann and C. Ritter. Neutron diffraction study of mesoporous and bulk hematite, alpha-Fe_2O_3. Chemistry of Materials 20, 4891 (2008). 10.1021/cm800009s
101. K. M. Shaju, F. Jiao, A. Debart and P. G. Bruce* Mesoporous and nanowire Co_3O_4 as negative electrodes for rechargeable lithium batteries. Physical Chemistry Chemical Physics 9, 1837 (2007). 10.1039/b617519h
102. F. Jiao, A. Harrison, A. H. Hill and P. G. Bruce* Mesoporous Mn_2O_3 and Mn_3O_4 with crystalline walls. Advanced Materials 19, 4063 (2007). 10.1002/adma.200700336
103. F. Jiao, A. Harrison and P. G. Bruce* Ordered three-dimensional arrays of monodispersed Mn_3O_4 nanoparticles with a core-shell structure and spin-glass behavior. Angewandte Chemie-International Edition 46, 3946 (2007). 10.1002/anie.200700087
104. F. Jiao and P. G. Bruce* Mesoporous crystalline beta-MnO_2- a reversible positive electrode for rechargeable lithium batteries. Advanced Materials 19, 657 (2007). 10.1002/adma.200602499
105. F. Jiao, J. L. Bao and P. G. Bruce* Factors influencing the rate of Fe_2O_3 conversion reaction. Electrochemical and Solid State Letters 10, A264 (2007). 10.1149/1.2783268
106. F. Jiao, J. C. Jumas, M. Womes, A. V. Chadwick, A. Harrison and P. G. Bruce* Synthesis of ordered mesoporous Fe_3O_4 and gamma-Fe_2O_3 with crystalline walls using post-template reduction/oxidation. Journal of the American Chemical Society 128, 12905 (2006). 10.1021/ja063662i
107. F. Jiao, A. Harrison, J. C. Jumas, A. V. Chadwick, W. Kockelmann and P. G. Bruce* Ordered mesoporous Fe_2O_3 with crystalline walls. Journal of the American Chemical Society 128, 5468 (2006). 10.1021/ja0584774
108. F. Jiao, K. M. Shaju and P. G. Bruce* Synthesis of nanowire and mesoporous low-temperature $LiCoO_2$ by a post-templating reaction. Angewandte Chemie-International Edition 44, 6550 (2005). 10.1002/anie.200501663
109. F. Jiao and P. G. Bruce* Two- and three-dimensional mesoporous iron oxides with microporous walls. Angewandte Chemie-International Edition 43, 5958 (2004). 10.1002/anie.200460826

110. Jiao, F., Yue, B.*, Zhu, K. K., Zhao, D. Y. & He, H. Y.* α-Fe_2O_3 nanowires: Confined synthesis and catalytic hydroxylation of phenol. ***Chemistry Letters*** 32, 770-771 (2003). doi:10.1246/cl.2003.770

Patents

(1) Jiao, F., Jouny, M., & Lv, J. J. Electrochemical generation of valuable chemicals from carbon dioxide and carbon monoxide. US Patent (granted).
(2) Jiao, F., Lu, Q., Hutchings, G. S., & Chen, J. G. Electrocatalyst for hydrogen evolution and oxidation reactions. US Patent: US9994961 B2 (2018).
(3) Frei, H. M. & Jiao, F. Nanostructured transition metal oxides useful for water oxidation catalysis. US Patent: US8613900 B2 (2013).

Book Chapters

(1) Yonemoto, B. T., Hutchings, G. S., & Jiao, F. The Need for a Storage Revolution for a Green Energy Economy. In *Green Energy Economies*, Chapter 11, 232-252 (2014). ISBN: 978-1-4128-5375-0

Teaching

Introduction to Engineering (EGGG 101)
– undergraduate level, ~100 students, co-instructor, 2015
Chemical Engineering Thermodynamics I (CHEG 231)
– undergraduate level, ~100 students, co-instructor, 2011-2014 & 2020-2022
Chemical Engineering Thermodynamics II (CHEG 325)
– undergraduate level, ~100 students, co-instructor, 2015, 2016, 2018-2020
Chemical Engineering Kinetics (CHEG 332)
– undergraduate level, ~100 students, co-instructor, 2010
Chemical Engineering Laboratory I (CHEG 345)
– undergraduate level, ~100 students, co-instructor, 2012-2015
Chemical Engineering Laboratory II (CHEG 445)
– undergraduate level, ~80 students, co-instructor, 2016
Electrochemical Energy Engineering (CHEG632)
– undergraduate/graduate elective, ~30 students, instructor, 2018, 2019, 2021
Special Topics in Energy (CHEG 614)
– undergraduate/graduate elective, ~30 students, co-instructor, 2011-2016, 2023
Electrochemical Processes (CHEG850)
–graduate level, ~30 students, instructor, 2022, 2023

Presentations at International/National Conferences and Workshops (2015 - Present)

1. "CO_2 Electrolysis Systems for Chemical and Food Production", invited plenary speaker, International Symposium on Green Transformation of Carbon Dioxide, Brisbane, Australia (2023)
2. "Tandem CO_2 Electrolysis System for Chemical Production", invited talk, AICHE Annual Meeting, Orlando, FL (2023)
3. "Novel Electrocatalysts for Nitrogen Oxides Reduction at Ambient Conditions", oral presentation, AICHE Annual Meeting, Orlando, FL (2023)
4. "Electrocatalysis for Carbon Dioxide Utilization", invited tutorial presentation, AICHE Annual Meeting, Orlando, FL (2023)
5. "Electrochemical systems for carbon dioxide utilization", invited keynote, The 28th North American Meeting (NAM) of the North American Catalysis Society, Providence, RI (2023)
6. "Electrochemical systems for carbon dioxide utilization", invited speaker, Canadian Chemistry Conference and Exhibition, Vancouver, Canada (2023)
7. "Electrochemical systems for carbon dioxide utilization", invited speaker, ENFL, ACS Spring National Meeting, Indianapolis, IN (2023)

8. "Carbon dioxide electrolysis for sustainable chemical production", invited speaker, International Young Scientists Salon on Photo & Electro Catalytic Carbon Dioxide Reduction Reaction (2022)
9. "Electrocatalytic Carbon Dioxide Conversion into Valuable Chemicals", invited speaker, 9th Irsee Symposium Meeting, Irsee, Germany (2022)
10. "A TANDEM ELECTROLYSIS PROCESS FOR MULTI-CARBON CHEMICAL PRODUCTION FROM CARBON DIOXIDE", oral presentation, DOE/NETL CO_2 Capture Technology Project Review Meeting, Pittsburgh, PA (2022)
11. "Electrochemical Reduction of Gaseous Nitrogen Oxides on Transition Metals at Ambient Conditions", the 27th North American Catalysis Society Meeting, New York, NY (2022)
12. "Electrocatalysis for Carbon Dioxide Utilization", invited speaker, KAUST Conference - Carbon Capture and Utilization, King Abdullah University of Science and Technology, Saudi Arabia (2022)
13. "Electrocatalytic Carbon Dioxide Conversion into Valuable Chemicals", invited speaker, NOW CHAINS, Annual Dutch Chemistry Conference (2021)
14. "Electrocatalytic Carbon Dioxide Conversion into Valuable Chemicals", invited speaker, APS-CPS symposium on Energy and Sustainability (2021)
15. Scialog Negative Emissions Science Workshop, Research Corporation for Science Advancement and Alfred P. Sloan Foundation (2021)
16. "A TANDEM ELECTROLYSIS PROCESS FOR MULTI-CARBON CHEMICAL PRODUCTION FROM CARBON DIOXIDE", oral presentation, DOE/NETL CO_2 Capture Technology Project Review Virtual Meeting (2021)
17. "Carbon dioxide electrolysis for sustainable chemical production", invited talk, NanoFe Fall Meeting (2021)
18. "Carbon dioxide electrolysis for sustainable chemical production", oral presentation, ECS Fall National Meeting (2021)
19. "Carbon dioxide electrolysis for sustainable chemical production", oral presentation, ACS Fall National Meeting (2021)
20. "Carbon dioxide electrolysis for sustainable chemical production", invited keynote speaker, 15th International Conference on Materials Chemistry, Dublin (2021)
21. Panelist, Next Generation Electrochemistry Workshop, Department of Chemistry, University of Illinois at Chicago (2021)
22. "Carbon dioxide electrolysis for sustainable chemical production", invited speaker, Nature Sustainability Workshop Series - Catalysis: an enabling science for a sustainable future, Springer Nature Publishing Group (2021)
23. Special guest moderator, Microfluidics & Energy Symposium (2021)
24. "Electrocatalytic Carbon Dioxide Conversion into Valuable Chemicals", Keynote speaker, International Symposium on Electrocatalysis and Electrosynthesis, Chinese Chemical Society (2021)
25. "Carbon dioxide electrolysis for chemical production", oral presentation, ACS Spring National Meeting (2021)
26. "Electrocatalytic Carbon Dioxide Conversion into Valuable Chemicals", Keynote speaker, Competitive Energy Systems Symposium, AICHE (2021)
27. "Electrocatalytic Carbon Dioxide Conversion into Valuable Chemicals", invited seminar, School of Materials Science & Engineering, Nanyang Technological University, Singapore (2021)
28. "Electrocatalytic Carbon Dioxide Conversion into Valuable Chemicals", invited seminar, Department of Chemical and Biomolecular Engineering, KAIST, South Korea (2021)
29. "A TANDEM ELECTROLYSIS PROCESS FOR MULTI-CARBON CHEMICAL PRODUCTION FROM CARBON DIOXIDE", oral presentation, DOE/NETL CO_2 Capture Technology Project Review Virtual Meeting (2020)
30. "Electrocatalytic Carbon Dioxide Conversion into Valuable Chemicals", invited seminar, Department of Chemical Engineering, University of Illinois at Chicago (2020)
31. "Carbon Dioxide Electrolysis for Sustainable Chemical Production", invited talk, nanoFe Fall Meeting (2020)
32. "Electrochemical CO_2 conversion to valuable chemicals", virtual presentation, AICHE Annual Meeting (2020)
33. Scialog Negative Emissions Science Workshop, Research Corporation for Science Advancement and Alfred P. Sloan Foundation (2020)
34. "Electrochemical CO_2 reduction – challenges and opportunities", invited talk, Monthly Invited Talk Series (MITs), ACS Energy and Fuels Division (2020)
35. "Electrochemical Conversion of Carbon Dioxide to Alcohols", oral presentation, NETL CO_2 Capture Technology Project Review Virtual Meeting (2020)

36. Reactive CO_2 Capture Workshop, DOE/NREL, Golden, CO (2020)
37. African School of Catalysis, course instructor, Kigali, Rwanda (2020)
38. "Formation of Carbon-Nitrogen Bonds in Carbon Monoxide Electroreduction", invited talk, AICHE Annual Meeting, Orlando, FL (2019).
39. "Electrochemical CO_2 conversion to valuable chemicals", oral presentation, AICHE Annual Meeting, Orlando, FL (2019).
40. "Carbon Utilization using Electrochemical Approaches", oral presentation, ACS National Meeting, Orlando, FL (2019).
41. "Two-dimensional copper nanosheets for electrochemical reduction of carbon monoxide to acetate", invited talk, ACS National Meeting, San Diego, CA (2019).
42. "CO_2 electrolysis: state-of-the-art, techno-economic analysis, and challenges", invited speaker, CIFAR Ion Selective Membranes in CO_2 Electrolysis, Pittsburgh, PA (2019).
43. "Electrochemical Conversion of Carbon Dioxide to Alcohols", oral presentation, NETL CO_2 Capture Technology Project Review Meeting, Pittsburgh, PA (2019).
44. "Electrochemical CO conversion to valuable chemicals", invited talk, ACS National Meeting, Orlando, FL (2019).
45. "Carbon utilization using electrochemical approaches", invited talk, ACS National Meeting, Orlando, FL (2019).
46. "Electrochemical Conversion of Carbon Dioxide to Alcohols", oral presentation, NETL CO_2 Capture Technology Project Review Meeting, Pittsburgh, PA (2018).
47. "Electrochemical CO_2 Conversion to Valuable Chemicals", invited talk, AICHE Annual Meeting, Pittsburgh, PA (2018).
48. "Bimetallic catalyst with a core-shell structure for CO_2 reduction", invited talk, ACS National Meeting, Boston, MA (2018).
49. "Electrochemical CO_2 conversion to valuable chemicals", invited talk, ACS National Meeting, Boston, MA (2018).
50. "Electrochemical carbon dioxide conversion to alcohols", invited talk, ACS National Meeting, New Orleans, LA (2018).
51. "Ag-Sn Bimetallic Catalyst with a Core-Shell Structure for CO_2 Reduction", oral presentation, AICHE Annual Meeting, Minneapolis, MN (2017).
52. "Electrochemical Conversion of Carbon Dioxide to Alcohols", oral presentation, NETL CO_2 Capture Technology Project Review Meeting, Pittsburgh, PA (2017).
53. "Ultra-Thin Electrocatalysts for Carbon Dioxide Reduction", oral presentation, 25th North American Catalysis Society Meeting, Denver, CO (2017).
54. "Nanostructured Materials as Advanced Electrocatalysts", oral presentation, 25th North American Catalysis Society Meeting, Denver, CO (2017).
55. "Nanoporous materials: synthesis and electrocatalytic properties", invited keynote presentation, ACS National Meeting, Washington, DC (2017)
56. "Mesoporous metal sulfides and carbides", oral presentation, MESD, AICHE annual meeting, San Francisco, CA (2016).
57. "Novel Nanostructured Materials for Energy Applications", invited keynote presentation, Division of Energy and Fuels, ACS National Meeting, Philadelphia, PA (2016).
58. "Electrochemical Conversion of Carbon Dioxide", invited speaker, Solar Fuels Generation: PV and Electrolysis Workshop, Newark, DE (2016).
59. "Nanostructured Catalysts for Solar Fuel Production", invited speaker, Catalysis for Artificial Photosynthesis, KAUST Catalysis Center Symposium, Saudi Arabia (2016).
60. "Nanostructured Metals: Advanced Electrocatalysts for Carbon Dioxide Reduction", oral presentation, AICHE Annual Meeting, Salt Lake City, UT (2015).
61. "Cobalt oxide nanocubanes for photocatalytic water oxidation", oral presentation, Division of Catalysis Science and Technology, ACS National Meeting, Boston, MA (2015).
62. "Nanostructured metals for electrochemical carbon dioxide reduction", oral presentation, Division of Energy and Fuels, ACS National Meeting, Boston, MA (2015).
63. "Nanoporous Bimetallic Catalyst for Hydrogen Evolution", oral presentation, Division of Energy and Fuels, ACS National Meeting, Boston, MA (2015).

64. "In Situ/Operando XAS studies of electrochemical systems", invited speaker, Division of Energy and Fuels, ACS National Meeting, Denver, CO (2015).
65. "Nanoporous materials for energy applications", invited speaker, Division of Catalysis Science and Technology, ACS National Meeting, Denver, CO (2015).
66. "Synthesis of mesoporous metal sulfides", oral presentation, Division of Inorganic Chemistry, ACS National Meeting, Denver, CO (2015).

Invited Seminars at Academic Institutes, National Laboratories, and Industries (2015 - Present)

1. "CO2 Electrolysis Systems for Chemical Production", invited seminar, Department of Chemical and Biological Engineering, Villanova University, Villanova, PA (2023)
2. "Electrocatalytic Conversion of Small Molecules For Chemical and Food Production", invited seminar, Department of Chemical Engineering, UMass Lowell, Lowell, MA (2023)
3. "Tandem CO2 Electrolysis System for Chemical Production", 638th Xinda Lectureship, Chemistry and Molecular Engineering College, Peking University, China (2023)
4. "Tandem CO2 Electrolysis System for Chemical Production", invited seminar, Department of Chemical Engineering, Tsinghua University, China (2023)
5. "Tandem CO2 Electrolysis System for Chemical Production", invited seminar, Department of Physics, Denmark Technical University, Denmark (2023)
6. "Electrocatalysis for Carbon Dioxide Utilization", invited virtual seminar, Department of Electrical and Computer Engineering, University of Houston, TX (2023)
7. "Electrocatalysis for Carbon Dioxide Utilization", invited seminar, Department of Chemical Engineering, Iowa State University, IA (2023)
8. "Electrocatalysis for Carbon Dioxide Utilization", invited speaker, Catalysis Club of Philadelphia, DE (2023)
9. "Electrocatalysis for Carbon Dioxide Utilization", invited seminar, Department of Energy, Environmental & Chemical Engineering, Washington University in St. Louis, MO (2022)
10. "Electrocatalysis for Carbon Dioxide Utilization", invited seminar, Department of Chemical and Environmental Engineering, University of Cincinnati, OH (2022)
11. "Recent Advances in Carbon Dioxide Electrocatalysis", invited seminar, Dalian Institute of Chemical Physics, Dalian, China (2022)
12. "Recent Advances in Carbon Dioxide Electrocatalysis", invited seminar, Huazhong University of Science & Technology, Wuhan, China (2022)
13. "Recent Advances in Carbon Dioxide Electrocatalysis", invited seminar, School of Chemical Engineering, Tianjin University, Tianjin, China (2022)
14. "Recent Advances in Carbon Dioxide Electrocatalysis", invited seminar, Department of Chemistry, Fudan University, Shanghai, China (2022)
15. "Electrocatalysis for Carbon Dioxide Utilization", invited seminar, NSF Center for Integrated Catalysis, UCLA (2022)
16. "Recent Advances in Carbon Dioxide Electrocatalysis", invited seminar, Southern University of Science and Technology, Shenzhen, China (2022)
17. "Tandem Electrolysis Process for Multi-Carbon Chemical Production from Carbon Dioxide", invited speaker, Indo-US Scoping Workshop on Carbon Utilization and Conversion, organized by Department of Science & Technology, India and Department of Energy, USA (2022)
18. "Electrochemical carbon dioxide conversion to valuable chemicals", invited virtual seminar, School of Materials Science and Engineering, Nanyang Technological University, Singapore (2021)
19. "Electrochemical carbon dioxide conversion to valuable chemicals", invited virtual seminar, Department of Chemical and Biomolecular Engineering, KAIST, South Korea (2021)
20. "Electrochemical Carbon Dioxide Conversion to Valuable Chemicals", invited seminar, Department of Chemistry, University of Massachusetts, Amherst, MA (2020).
21. "Electrochemical Carbon Dioxide Conversion to Valuable Chemicals", invited seminar, Department of Chemistry & Biochemistry, University of California, Santa Cruz, CA (2019).
22. "Electrifying chemical production", invited seminar, Air Liquide, Newark, DE (2019).

23. "Electrochemical Conversion of CO_2 and CO to C_{2+} chemicals", invited seminar, Center for Functional Nanomaterials, Brookhaven National Laboratory, NY (2019).
24. "High-rate CO_2 and CO electrolysis to C_{2+} products", invited seminar, School of Chemical Engineering, Tianjin University, Tianjin, China (2019).
25. "High-rate CO_2 and CO electrolysis to C_{2+} products", invited seminar, Department of Chemistry, University of Virginia, VA (2019).
26. "High-rate CO_2 and CO electrolysis to C_{2+} products", invited seminar, Department of Electrical and Computer Engineering, University of Toronto, Canada (2018).
27. "Electrochemical carbon dioxide & carbon monoxide reduction to valuable chemicals", invited seminar, Department of Chemical and Environmental Engineering, University of California, Riverside, CA (2018).
28. "Electrochemical carbon dioxide & carbon monoxide reduction to valuable chemicals", invited seminar, Joint Center for Artificial Photosynthesis, Caltech, Pasadena, CA (2018).
29. "Electrochemical carbon dioxide & carbon monoxide reduction to valuable chemicals", invited seminar, College of Chemistry & Biochemistry, University of California, Los Angeles, CA (2018).
30. "Electrochemical CO_2 Conversion to Valuable Chemicals", invited seminar, Delaware State University, Dover, DE (2018).
31. "Electrochemical CO_2 conversion to valuable chemicals", invited seminar, School of Chemical Science and Engineering, Tongji University, Shanghai, China (2018).
32. "Electrochemical Carbon Dioxide Conversion to Valuable Chemicals", invited seminar, Lawrence Berkeley National Laboratory, Berkeley, CA (2017).
33. "Nanoporous Materials for Electrochemical Systems", invited seminar, Pacific Northwest National Laboratory, Richland, WA (2017).
34. "Electrochemical carbon dioxide conversion", invited seminar speaker, Air Liquide Technical Exchange Seminar, Air Liquide, Newark, DE (2017).
35. "Nanoporous materials for electrochemical systems", invited seminar speaker, Department of Chemical and Biological Engineering, Drexel University, Philadelphia, PA (2016).
36. "Nanoporous materials for electrochemical systems", invited seminar speaker, Lenfest Center for Sustainable Energy, Columbia University, New York, NY (2015).
37. "Nanoporous materials for electrochemical systems", invited seminar speaker, Department of Chemical Engineering, University of Oklahoma, Norman, OK (2015).
38. "Advanced Energy Storage Systems", invited seminar speaker, Eastman Chemical Company, Kingsport, TN (2015).
39. "Nanoporous Materials for Energy Storage Systems", invited seminar speaker, Department of Chemistry, University of Connecticut, Storrs, CT (2015).

Reviewer/Panelist/Contributor for national and international organizations/committees

1. Agency for Science, Technology and Research (A*STAR), Singapore
2. Natural Sciences and Engineering Research Council of Canada (NSERC), Canada
3. Mission Innovation Carbon Capture, Utilization and Storage Experts' Workshop (Electrochemistry and Photochemistry Panelist), Houston, TX (2017)
4. Testified before the U.S. Senate Committee on Environment and Public Works at the hearing of the Utilizing Significant Emissions with Innovative Technologies Act (or USE IT Act), 2018.
5. Contributor to the 2019 National Petroleum Council report - "Meeting the Dual Challenge, A Roadmap to At-Scale Deployment of Carbon Capture, Use and Storage"
6. National Science Foundation (CBET, SBIR), USA
7. Department of Energy (BES, SBIR-STTR, ARPA-E), USA
8. American Chemical Society - Petroleum Research Foundation, USA
9. National Aeronautics and Space Administration (NASA), USA
10. Research Grants Council (RGC) of Hong Kong, China
11. National Research Foundation, Singapore

Reviewer for Journals (selected list)

Accounts of Chemical Research
ACS Applied Materials & Interfaces
ACS Catalysis
ACS Energy Letters
ACS Nano
ACS Sustainable Chemistry & Engineering
Advanced Materials
Advanced Functional Materials
Advanced Energy Materials
AIChE Journal
Angewandte Chemie International Edition
Applied Catalysis B: Environmental
Catalysis Science and Technology
Chem
Chem Catalysis
Chemical Communications
Chemistry of Materials
ChemCatChem
ChemSusChem
Energy and Environmental Science
Energy and Fuels
Industrial & Engineering Chemistry Research
Joule
Journal of Catalysis
Journal of Materials Chemistry A
Journal of the American Chemical Society
Nano Energy
Nature
Nature Catalysis
Nature Chemical Engineering
Nature Chemistry
Nature Communications
Nature Energy
Nature Nanotechnology
Nature Sustainability
Physical Chemistry Chemical Physics
Science Advances

Membership in Professional Societies

American Chemical Society
American Institute of Chemical Engineering
The Electrochemical Society
Royal Society of Chemistry (Affiliate Member)

Conference Symposium Organizer/Session Chair

1. Program Chair, Division of Energy & Fuels, American Chemical Society (2023)
2. Symposium organizer, Division of Energy & Fuels, American Chemical Society (2022)
3. The 27th North American Catalysis Society Meeting, Session Chair: Electrocatalytic CO_2 reduction (2022)
4. Symposium organizer, Division of Energy & Fuels, American Chemical Society (2021)
5. AICHE Annual Meeting, Symposium Session chair: Electrocatalysis and Photoelectrocatalysis (2020).
6. American Chemical Society National Meeting, ENFL, Symposium co-organizer: Electrochemistry Enables Catalysis for Energy, Chemicals and Materials (2020).
7. American Chemical Society National Meeting, ENFL, Symposium co-organizer: Sustainable Energy & Water via Innovative Electrocatalytic, Photocatalytic & Hybrid Catalytic System (2019).
8. AICHE Annual Meeting, Session chair: Electrocatalysis and Photoelectrocatalysis (2019).
9. American Chemical Society National Meeting, ENFL, Symposium co-organizer: Sustainable Energy Conversion via Innovative Electrocatalysis & Photocatalysis (2019).
10. AICHE Annual Meeting, Session chair: Electrocatalysis and Photoelectrocatalysis (2018).
11. American Chemical Society National Meeting, ENFL, Symposium co-organizer: Carbon Dioxide Conversion & Artificial Photosynthesis (2018).
12. American Chemical Society National Meeting, ENFL, Symposium co-organizer: Sustainable Energy Conversion via Innovative Electrocatalysis & Photocatalysis (2018).
13. AICHE Annual Meeting, Session co-chair: Electrocatalysis and Photoelectrocatalysis (2017).
14. 25th Biennial North American Meeting of the North American Catalysis Society, Session co-chair: Catalysis Poisoning and Deactivation 1 (2017).
15. 25th Biennial North American Meeting of the North American Catalysis Society, Session co-chair: Environmental: CO_2 conversion 1 (2017).
16. American Chemical Society National Meeting, ENFL, Symposium co-organizer: Innovative Chemistry & Electrocatalysis for Low-Carbon Energy & Fuels: Discovery to Application (2017).

17. American Chemical Society National Meeting, CATL, Symposium co-organizer: Advances in Carbon Dioxide Utilization (2017).
18. 91st American Chemical Society Colloid and Surface Science Symposium, Session co-organizer, New York (2017).
19. American Chemical Society National Meeting, ENFL, Symposium organizer: Innovative Chemistry & Electrocatalysis for Low-Carbon Energy & Fuels: Discovery to Application (2015).
20. American Chemical Society National Meeting, ENFL, Session co-chair: Carbon Dioxide Management: Recent Advances in Carbon Dioxide Capture, Conversion, Utilization and Storage (2014).
21. AICHE Annual Meeting, Session co-chair: Biocomposites (2013).
22. AICHE Annual Meeting, Session co-chair: Structure, Properties and Characterization of Nanocomposites (2012).

Collaborators (Current & Past)

Chulsung Bae (Rensselaer Polytechnic Institute)
Aditya Bhan (University of Minnesota)
Peter Bruce (University of Oxford)
Karen Chan (Technical University of Denmark)
Fanglin Che (UMass Lowell)
Jingguang Chen (Columbia University)
Susie Dai (TAMU)
Kun Fu (University of Delaware)
William A. Goddard III (Caltech)
Jinlong Gong (Tianjin University)
Liangbing Hu (Yale)
Xiaoqing Huang (Xiamen University)
Robert Jinkerson (UC, Riverside)
Jean-Claude Jumas (University Montpellier)
Yijin Kang (UESTC)
Freddy Kleitz (University of Vienna)
Xinhua Liang (WUSTL)
Yuanyue Liu (University of Texas at Austin)
Raul Lobo (University of Delaware)
Qi Lu (Tsinghua University)
Xinbin Ma (Tianjin University)
KC Neyerlin (NREL)
Alissa Park (UCLA)
Brian Seger (Technical University of Denmark)
Samira Siahrostami (University of Calgary)
Yuyan Shao (PNNL)
Fan Shi (NETL)
Wilson Smith (NREL)
Mark Snyder (Lehigh University)
Dong Su (Institute of Physics, CAS)
Dion Vlachos (University of Delaware)
John Xiao (University of Delaware)
Hongliang Xin (Virginia Tech)
Bingjun Xu (Peking University)
Xiaoxiang Xu (Tongji University)
Yushan Yan (University of Delaware)
Yang Yang (University of Central Florida)
Pierre Yao (University of Delaware)
Joshua Yuan (WUSTL)
Haotian Wang (Rice University)
Gang Wu (WUSTL)
Haimei Zheng (LBNL)
Kake Zhu (ECUST)

Postdoctoral Fellows (Current)

Wanyu Deng	(2023 – Present)
Junnan Li	(2023 – Present)
Jia Yu	(2023 – Present)
Hefei Li	(2023 – Present)
Zoushuang Li	(2023 – Present)
Nannan Meng	(2023 – Present)
Miao Miao	(2023 – Present)

Graduate Students (Current)

Bradie Crandall	(2021 – Present)
Luke Cherniack	(2021 – Present)
Ahryeon Lee	(2022 – Present)
Siyang Xing	(2023 – Present)
Wentao Dai	(2023 – Present)
Zhaoxi Wang	(2023 – Present)

Undergraduate Student (Current)

N/A

Alumni

Seif Yusuf	M.Ch.E (2010 – 2012)	Wenlei Zhu	Postdoc (2017 – 2018)
Bryan Yonemoto	PhD (2010 – 2015)	Hongjie Tang	Postdoc (2017 – 2019)
Gregory Hutchings	PhD (2010 – 2015)	Jingjing Lyu	Visiting grad (2017 – 2019)
Yan Zhang	M.Ch.E (2012 – 2015)	Wesley Luc	PhD (2014 – 2019)
Qi Lu	Postdoc (2012 – 2016)	Matthew Jouny	PhD (2015 – 2020)
Jonathan Rosen	PhD (2011 – 2016)	Emily Jeng	M.Ch.E. (2017 – 2020)
Andrew Craft	M.Ch.E. (2015 – 2017)	Byung Hee (Brian) Ko	PhD (2017 – 2022)
Bjorn Hasa	Postdoc (2019 – 2022)	Rong Xia	Postdoc (2019 – 2022)
Haeun Shin	PhD (2019 – 2023)	Sean Overa	PhD (2019 – 2023)
Matt Naughton	Grad stud. (2022 – 2023)	Izak Minnie	Grad stud. (2022 – 2023)
Gen Yarema	Grad stud. (2022 – 2023)	Kentaro Hansen	(2020 – 2024)

Undergraduate Students (Past)

Andy Redder	(2022 – 2023)	Dillon Gashi	(2016)
Abdul Fayeed	(2020 – 2022)	William Barndt	(2016)
Ruixue Xiong	(2021 – 2022)	Richard Sherrer	(2015 – 2016)
Wilson Chen	(2019)	Kaelan Reed	(2014 – 2015)
Sarah DiBenede	(2018 – 2019)	Alex Moore	(2014)
Zachary LaDuca	(2018)	Sean Rivera	(2014)
John Foster	(2017)	Kevin Abraham	(2013)
Jacob Brennan	(2017)	Jinghan Zhao	(2011 – 2013)
Lukas Wieder	(2017)	Touseef Habib	(2011 – 2012)
Sean Overa	(2017)	Hasan Raboui	(2011)
Ning Zhao	(2017)	Kameron Conforti	(2012 – 2013)
Albert Schaeffer	(2017)	Mengguang Wang	(2011 – 2013)
Charles Collins	(2014 – 2017)	Jamie Bakri	(2011)
Samuel Haas	(2016)	Yuan Wei	(2011)

High School Summer Interns (Past)

Lily Giang	(2022)
Zimo Liu	(2022)
Jeffrey Yao	(2022)
Kate Li	(2022)
Ashrith Kandula	(2021)
Edward Bao	(2012 – 2013)