

Song Lin

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Education

UC Berkeley, Postdoctoral Fellow, 2013–2016 (Advisor: Christopher J. Chang)
Harvard University, Ph.D. in Chemistry, 2013 (Advisor: Eric N. Jacobsen)
Peking University, B.S. in Chemistry, 2008

Appointments

Cornell University, Assistant Professor of Chemistry, July 1, 2016–present

Professional Associations

Cornell Center for Materials Research, Member, 2016–present
David R. Atkinson Center for a Sustainable Future, Cornell University, Faculty Fellow, 2016–present
Chemistry Biology Interface Training Program, Cornell University, Mentor, 2017–present

Publications

1. Fu, N.; Sauer, G. S.; Lin, S. “A general, electrocatalytic approach to the synthesis of vicinal diamines.” *Nat. Protoc.* **2018**, accepted.
2. Hao, W.; Harenberg, J. H.; MacMillan, S. N.; Lin, S. “Diastereo- and enantioselective [3+2] cycloaddition of cyclopropyl ketones and alkenes via Ti-catalyzed radical redox relay”, *J. Am. Chem. Soc.* **2018**, *140*, 3514–3517. DOI: 10.1021/jacs.7b13710.
3. Ye, K.-Y.; Pombar, G.; Fu, N.; Sauer, G. S.; Keresztes, I.; Lin, S. “Anodically coupled electrolysis for the hetero-difunctionalization of alkenes.” *J. Am. Chem. Soc.* **2018**, *140*, 2438–2441. DOI: 10.1021/jacs.7b13387.
4. Peterson, B. M.; Lin, S.; Fors, B. P. “Electrochemically controlled cationic polymerization of vinyl ethers”, *J. Am. Chem. Soc.* **2018**, *140*, 2076–2079. DOI: 10.1021/jacs.8b00173.
5. Parry, J. B.; Fu, N.; Lin, S. “Electrocatalytic difunctionalization of olefins as a general approach to the synthesis of vicinal diamines.” *Synlett* **2018**, *29*, 257–265. DOI: 10.1055/s-0036-1591749
6. Fu, N.; Sauer, G. S.; Lin, S. “Electrocatalytic radical dichlorination of alkenes with nucleophilic chlorine sources.” *J. Am. Chem. Soc.* **2017**, *139*, 15548–15553. DOI: 10.1021/jacs.7b09388.
7. Hao, W.; Wu, X.; Sun, J. Z.; Siu, J. C.; MacMillan, S. N.; Lin, S. “Radical redox-relay catalysis: formal [3+2] cycloaddition of *N*-acylaziridines and alkenes.” *J. Am. Chem. Soc.* **2017**, *139*, 12141–12144. DOI: 10.1021/jacs.7b06723.
8. Fu, N.; Sauer, G. S.; Saha, A.; Loo, A.; Lin, S. “Metal-catalyzed electrochemical diazidation of alkenes.” *Science* **2017**, *357*, 575–579. DOI: 10.1126/science.aan6206.

Prior to Cornell:

9. Diercks, C. S.[†]; Lin, S.[†]; Kornienko, N.; Kapusin, E. A.; Nichols, E. M.; Zhu, C.; Zhao, Y.; Chang, C. J.; Yaghi, O. M. “Reticular electronic tuning of porphyrin active sites in covalent organic frameworks for electrocatalytic carbon dioxide reduction.” *J. Am. Chem. Soc.* **2018**, *140*, 1116–1122. ([†]co-first author).
10. Kennedy, C. R.[†]; Lin, S.[†]; Jacobsen, E. N. “The cation– π interaction in small-molecule catalysis.” *Angew. Chem., Int. Ed.* **2016**, *55*, 12596–12624 ([†]co-first author)
11. Cao, Z.; Kim, D.; Hong, D.; Yu, Y.; Xu, J.; Lin, S.; Wen, X.; Nichols, E. M.; Jeong, K.; Reimer, J. A.; Yang, P.; Chang, C. J. “A molecular surface functionalization approach to tuning nanoparticle electrocatalysts for carbon dioxide reduction.” *J. Am. Chem. Soc.* **2016**, *138*, 8120–8125
12. Lin, S.[†]; Diercks, C. S.[†]; Zhang, Y.-B.[†]; Kornienko, N.; Nichols, E. M.; Zhao, Y.; Paris, A. R.; Kim, D.; Yang, P.; Yaghi, O. M.; Chang, C. J. “Covalent organic frameworks comprising cobalt porphyrins for catalytic CO₂ reduction in water.” *Science* **2015**, *349*, 1208–1213 ([†]co-first author)

13. Kornienko, N.; Zhao, Y.; Kley, C.; Zhu, C.; Kim, D.; Lin, S.; Chang, C. J.; Yaghi, O. M.; Yang, P. "Metal-organic frameworks for electrocatalytic reduction of carbon dioxide." *J. Am. Chem. Soc.* **2015**, *137*, 14129–14135
14. Rogers, C.; Chen, C.; Pedramrazi, Z.; Omrani, A. A.; Tsai, H.-Z.; Jung, H. S.; Lin, S.; Crommie, M. F.; Fischer, F. R. "Closing the nanographene gap: surface-assisted synthesis of peripentacene from 6,6'-bipentacene precursors." *Angew. Chem., Int. Ed.* **2015**, *54*, 15143–15146
15. Zhang, H.; Lin, S.; Jacobsen, E. N. "Enantioselective selenocyclization via dynamic kinetic resolution of seleniranium ions by hydrogen-bond donor catalysts." *J. Am. Chem. Soc.* **2014**, *136*, 16485–16488
16. Lin, S.; Jacobsen, E. N. "Thiourea-catalysed ring opening of episulfonium ions with indole derivatives by means of stabilizing non-covalent interactions." *Nature Chem.* **2012**, *4*, 817–824
17. Knowles, R. R.; Lin, S.; Jacobsen, E. N. "Enantioselective thiourea-catalyzed polycyclizations." *J. Am. Chem. Soc.* **2010**, *132*, 5030–5032
18. Li, Y.-Z.; Li, B.-J.; Lu, X.-Y.; Lin, S.; Shi, Z.-J. "Cross dehydrogenative arylation (CDA) of a benzylic C–H bond with arenes by iron catalysis." *Angew. Chem., Int. Ed.* **2009**, *48*, 3817–3820
19. Lin, S.; Song, C.-X.; Cai, G.-X.; Wang, W.H.; Shi, Z.-J. "Intra/Intermolecular direct allylic alkylation via Pd(II)-catalyzed allylic C–H activation." *J. Am. Chem. Soc.* **2008**, *130*, 12901–12903

Honors and Awards

1. Milstein Fellow, Cornell University
2. NSF CAREER Award, 2018
3. 3M Nontenure Faculty Award, 2018
4. Thieme Chemistry Journal Award, 2018
5. Academic Venture Fund, Atkinson Center for a Sustainable Future, 2017
6. State Natural Science Award, China, 2014
7. Fieser Lectureship, Harvard University, 2012
8. Christensen Prize for Outstanding Research Achievement, Harvard University, 2012
9. Eli Lilly Graduate Student Fellowship, 2011
10. Certificate of Distinction for Excellence in Teaching, Harvard University, 2009
11. Chun-Tsung Undergraduate Research Scholarship, Peking University, 2007-2008

Presentations

1. Plenary Lecture, The 8th International Forum on Homogeneous Catalysis, Shanghai, China, 2018
2. Invited Seminar, Merck Research Laboratories, Rahway, NJ, 2018
3. Gordon Research Conference: Heterocyclic Compounds, Newport, RI, 2018
4. Electrochemical Society National Meeting, Seattle, WA, 2018 Spring
5. Invited Seminar, Binghamton University, Binghamton, NY, 2018
6. FloHet Conference, Gainesville, FL, 2018 Spring
7. Gordon Research Conference: Electrochemistry, Ventura, CA, 2018
8. Invited Seminar, William Paterson University, Wayne, NJ, 2017 Fall
9. Gordon Research Conference: Natural Products and Bioactive Compounds (poster), Andover, NH, 2017
10. Gordon Research Conference: Heterocyclic Compounds (poster), Newport, RI, 2017
11. Electrochemical Society National Meeting, New Orleans, LA, 2017
12. American Chemical Society Northeastern Regional Meeting, Binghamton, NY, 2016