

Miao Qi

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Education

- 2015-Present Graduate Student, Boston College, Boston, United States
Advisor Prof. Jeffery A. Byers
- 2013-2015 Master of Science, Chemistry, National University of Singapore, Singapore
Advisor Prof. T. S. Andy Hor
- 2010-2014 Bachelor of Science, Chemistry
Soochow University, Suzhou, China

Research Experience

- 2015-Present Graduate research, Boston College, United States
Combining electrochemical techniques and catalyst development for the production of useful and green polymer materials
- 2013-2015 Final Year Project & Master's project, National University of Singapore, Singapore
Thesis title: Novel Catch-Release Catalysis System for Green Pharmaceutical and Fine Chemical Synthesis
Synthesized new ligand scaffolds and utilized host-guest interactions for the recovery of palladium catalysts in aqueous Suzuki-Miyaura reactions
- 2012-2014 National University Student Innovation Program, China
Advisor: Prof. Jie Dai, Soochow University, China
Solvothermal synthesis of titanium-oxo clusters and investigated their photocatalytic properties
- 2012-2014 Undergraduate Research Project
Advisor: Prof. Xiaoguang Bao, Soochow University, China
Mechanistic studies of transition metal complexes catalyzed chemoselective C-H bond amination reactions with DFT methods

Awards and Honors

- LaMattina fellow in chemical synthesis, Boston College 2019
- University excellence undergraduate student award, Soochow University 2014
- Academic excellence scholarships by Soochow University (three continuous years) 2012-2014
- Excellency scholarship for oversea studies, Soochow University 2014
- National University Student Innovation Program, China 2013-2014

Publications

1. Q. Dong, X. Yao, Y. Zhao, M. Qi, X. Zhang, H. Sun, Y. He, D. Wang*, “Cathodically Stable Li-O₂ Battery Operations Using Water-in-Salt Electrolyte”, *Chem*, **2018**, 4, 1345–1358.
2. M. Qi,[†] Q. Dong,[†] D. Wang, J. A. Byers*, “Electrochemically Switchable Ring-Opening Polymerization of Lactide and Cyclohexene Oxide”, *J. Am. Chem. Soc.*, **2018**, 140, 5686–5690.
3. M. A. Ortuño, B. Dereli, K. R. Delle Chiaie, A. B. Biernesser, M. Qi, J. A. Byers, C. J. Cramer*, “The Role of Alkoxide Initiator, Spin State, and Oxidation State in Ring-Opening Polymerization of ϵ -Caprolactone Catalyzed by Iron Bis(imino)pyridine Complexes”, *Inorg. Chem.*, **2018**, 57, 2064–2071.
4. M. Qi,[†] B. K. Chew, K. Yee,[†] Z. X. Zhang*, D. J. Young*, T. S. A. Hor*, “A Catch–release Catalysis System Based on Supramolecular Host–guest Interactions”, *RSC Adv.* **2016**, 6, 23686–23692.
5. M. Qi, P. Z. Tan, F. Xue, H. S. Malhi, Z. X. Zhang*, D. J. Young*, T. S. A. Hor*, “Supramolecular Inclusion Complex System as Recyclable Catalyst for Aqueous Suzuki-Miyaura Coupling”, *RSC. Adv.* **2015**, 5, 3590–3596.
6. K. P. Hou, M. Qi, X. G. Bao*, H. F. Schaefer, “Mechanistic Investigations of the AuCl₃-Catalyzed Nitrene Insertion into an Aromatic C-H Bond of Mesitylene”, *J. Org. Chem.*, **2015**, 80, 5795–5803.
7. Y. Y. Wu, X. W. Lu, M. Qi, H. C. Su, X. W. Zhao, Q. Y. Zhu*, and J. Dai*, “Titanium–Oxo Cluster with 9-Anthracenecarboxylate Antennae: A Fluorescent and Photocurrent Transfer Material”, *Inorg. Chem.*, **2014**, 53, 7233–7240

Presentations

1. Miao Qi, Qi Dong, Haochuan Zhang, Dunwei Wang and Jeffery A. Byers, “E-switchable polymerization”, Polymer Gordon Research Seminar, Mount Holyoke College in South Hadley, MA, June 2019, poster presentation
2. Miao Qi, Qi Dong, Dunwei Wang and Jeffery A. Byers, “E-switchable ring-opening polymerization of lactide and an epoxide”, 256th ACS National Conference, Boston, August 2018, oral presentation
3. Miao Qi, Fei Xue, Zhong-Xing Zhang, T. S. Andy Hor, “Novel “Catch-Release” Catalysis Systems for Green Pharmaceutical and Fine Chemical Synthesis”, 41th International Conference for Coordination Chemistry, Suntec Singapore Convection & Exhibition Center, Singapore, July 2014, poster presentation
4. Miao Qi, Zhong-Xing Zhang, T. S. Andy Hor, “Novel “Catch-Release” Catalysis Systems for Green Pharmaceutical and Fine Chemical Synthesis”, 4th Molecular Materials Meeting (M3) @ Singapore, Biopolis, Singapore, 14-16, January 2014, poster presentation

References

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Phone: (617)-552-3121

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