Yishu Jiang

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PROFESSIONAL EXPERIENCE

University of Rochester **Assistant Professor** **2024-present**
Research interest: Accessing *In vivo* Excited-State Photochemistry with Time and Space-Resolved Spectroscopy.

UC Berkeley **Postdoctoral Researcher** **Advisor: Professor Christopher Chang** **2022-2024**
Research interest: Development of active-based stimulated Raman scattering (SRS) probes and their application in live cell imaging.

EDUCATION AND TRAINING

Northwestern University **PhD in Chemistry** **Advisor: Professor Emily Weiss** **2016-2022**
Research interest: Development of colloidal quantum dots (QDs) photocatalysts and their application in synthetic photoreactions.

UC Berkeley **Summer School** **Advisor: Professor Thomas Russell & Ting Xu** **Summer 2015**
Research interest: The morphology of block copolymers.

Fudan University **BS in Chemistry** **Advisor: Professor Huisheng Peng** **2012-2016**
Research interest: Development of new functional materials for wearable energy devices.

AWARDS & FELLOWSHIPS

CBES Fellowship **2021**
Center for Bio-Inspired Energy Science (CBES) at Northwestern University

Gerhard Closs Graduate Student Award **2019**
Inter-American Photochemical Society

IIN Outstanding Researcher Awards **2019**
The International Institute for Nanotechnology (IIN) at Northwestern University

Hierarchical Materials Cluster Program (HMCP) Fellowship **2018**
Northwestern University

Excellent Graduation Awards **2016**
Fudan University

PUBLICATIONS

§Co-first authorship, *Corresponding author

21. **Jiang, Y.**; Khoury, E. E.; Pezacki, A. T.; Qian, N.; Oi, M.; Torrente, L.; Miller, S. G.; Ralle, M.; DeNicola, G. M.; Min, W.*; Chang, C. J.*, An Activity-Based Sensing Approach to Multiplex Mapping of Labile Copper Pools by Stimulated Raman Scattering*, J. Am. Chem. Soc.* **2024**, *146* (49), 33324–33337.

20. Xie, X. §; **Jiang, Y.** §; Chang, C. J.*, LOV thy neighbor: Mapping protein interactomes by genetically encodable photoproximity labeling. *PNAS.* **2023**, *120* (20), e2305211120.1.

19. **Jiang, Y.**; López-Arteaga, R.; Weiss. E.A.*, Quantum Dots Photocatalyze Intermolecular [2+2] Cycloadditions of Aromatic Alkenes Adsorbed to their Surfaces via van der Waals Interactions*, J. Am. Chem. Soc*. **2022**, *144* (9), 3782–3786.

18. **Jiang, Y.;** Yang, M.; Wu, Y.; Lopez-Arteaga, R.; Rogers, C. R.; Weiss, E. A.*, Chemo- and Stereoselective Intermolecular [2+2] Photocycloaddition of Conjugated Dienes using Colloidal Nanocrystal Photocatalysts, *Chem Catalysis* **2021,** *1* (1), 106-116.
17. **Jiang, Y.;** Weiss, E. A.*, Colloidal Quantum Dots as Photocatalysts for Triplet Excited State Reaction s of Organic Molecules. *Journal of the American Chemical Society* **2020,** *142* (36), 15219-15229.
16. **Jiang, Y.;** Wang, C.; Rogers, C. R.; Kodaimati, M. S.; Weiss, E. A.*, Regio-and diastereoselective inter molecular [2+ 2] cycloadditions photocatalysed by quantum dots. *Nature chemistry* **2019,** *11* (11), 1034-1040.
15. **Jiang, Y.;** Sun, H.; Peng, H.*, Synthesis and photovoltaic application of platinum-modified conducti ng aligned nanotube fiber. *Science China Materials* **2015,** *58* (4), 289-293.
14. Irgen-Gioro, S.; Yang, M.; Padgaonkar, S.; Chang, W. J.; Zhang, Z.; Nagasing, B.; **Jiang, Y.**; Weiss, E. A.* , Charge and energy transfer in the context of colloidal nanocrystals. *Chemical Physics Reviews* **2020**, *1* (1), 011305.
13. Jones, L. O.; Mosquera, M. A.; **Jiang, Y.;** Weiss, E. A.*; Schatz, G. C.*; Ratner, M. A.*, Thermodynamics and Mechanism of a Photocatalyzed Stereoselective [2 + 2] Cycloaddition on a CdSe Quantum Dot. *Journal of the American Chemical Society* **2020,** *142* (36), 15488-15495.
12. Zhang, W.; Sun, Z.; **Jiang, Y.;** Liu, X.; Gupta, R.; Russell, T. P.*; Bryan Coughlin, E.*, Tuning microdom ain spacing with light using ortho-nitrobenzyl-linked triblock copolymers. *Journal of Polymer Science Part B: Polymer Physics* **2018,** *56* (5), 355-361.
11. Kodaimati, M. S.; McClelland, K. P.; He, C.; Lian, S.; **Jiang, Y.;** Zhang, Z.; Weiss, E. A.*, Viewpoint: Chal lenges in Colloidal Photocatalysis and Some Strategies for Addressing Them. *Inorganic Chemistry* **2018,** *5 7* (7), 3659-3670.
10. Deng, J.; Li, J.; Chen, P.; Fang, X.; Sun, X.; **Jiang, Y.;** Weng, W.; Wang, B.; Peng, H.*, Tunable Photother mal Actuators Based on a Pre-programmed Aligned Nanostructure. *Journal of the American Chemical Soci ety* **2016,** *138* (1), 225-230.
9. Sun, H.; **Jiang, Y.;** Xie, S.; Zhang, Y.; Ren, J.; Ali, A.; Doo, S.-G.; Son, I. H.; Huang, X.; Peng, H.*, Integrati ng photovoltaic conversion and lithium ion storage into a flexible fiber. *Journal of Materials Chemistry A* **2 016,** *4* (20), 7601-7605.
8. Sun, H.; Fu, X.; Xie, S.; **Jiang, Y.;** Peng, H.*, Electrochemical capacitors with high output voltages tha t mimic electric eels. *Advanced Materials* **2016,** *28* (10), 2070-2076.
7. Sun, H.; Xie, S.; Li, Y.; **Jiang, Y.;** Sun, X.; Wang, B.; Peng, H.*, Large-Area Supercapacitor Textiles with Novel Hierarchical Conducting Structures. *Advanced Materials* **2016,** *28* (38), 8431-8438.
6. Sun, H.; Fu, X.; Xie, S.; **Jiang, Y.;** Guan, G.; Wang, B.; Li, H.; Peng, H.*, A novel slicing method for thin s upercapacitors. *Advanced Materials* **2016,** *28* (30), 6429-6435.
5. Luo, Y.; Zhang, Y.; Zhao, Y.; Fang, X.; Ren, J.; Weng, W.; **Jiang, Y.;** Sun, H.; Wang, B.; Cheng, X.*,Aligne d carbon nanotube/molybdenum disulfide hybrids for effective fibrous supercapacitors and lithium ion b atteries. *Journal of Materials Chemistry A* **2015,** *3* (34), 17553-17557.
4. Zhang, Y.; Zhao, Y.; Cheng, X.; Weng, W.; Ren, J.; Fang, X.; **Jiang, Y.;** Chen, P.; Zhang, Z.; Wang, Y.*, Re alizing both High Energy and High Power Densities by Twisting Three Carbon-Nanotube-Based Hybrid Fi bers. *Angewandte Chemie International Edition* **2015,** *54* (38), 11177-11182.
3. Sun, H.; **Jiang, Y.;** Qiu, L.; You, X.; Yang, J.; Fu, X.; Chen, P.; Guan, G.; Yang, Z.; Sun, X.*, Energy harvest ing and storage devices fused into various patterns. *Journal of Materials Chemistry A* **2015,** *3* (29), 14977-14984.
2. Sun, H.; Che, R.; You, X.; **Jiang, Y.;** Yang, Z.; Deng, J.; Qiu, L.; Peng, H.*, Cross-Stacking Aligned Carbo n-Nanotube Films to Tune Microwave Absorption Frequencies and Increase Absorption Intensities. *Adva nced Materials* **2014,** *26* (48), 8120-8125.

1. Sun, H.; You, X.; **Jiang, Y.;** Guan, G.; Fang, X.; Deng, J.; Chen, P.; Luo, Y.; Peng, H.*, Self-Healable Electr ically Conducting Wires for Wearable Microelectronics. *Angewandte Chemie International Edition* **2014,** *5 3* (36), 9526-9531.

U.S. Patent: 10961178B2, Issue Date: March 30, 2021, Expiration Date: April 17, 2040, Title: Cycloadditio n reactions using quantum dots: **Yishu Jiang**, Cameron R.Rogers, Mohamad S. Kodaimati, Emily A. Weiss.

COMMUNITY/VOLUNTEER SERVICE

National Chemistry Week **2019-2020**
Outreach Event by Department of Chemistry, University of Rochester
Science With Seniors **2019-2020**
Outreach Program by Science Policy Outreach Task Force (SPOT), Northwestern University
Science in the Classroom (SITC) at Hayt Elementary School, Volunteer **2017-2018**
Outreach Program by PLU, Department of Chemistry, Northwestern University
Visit Weekends for Perspective Graduate Students, Student Host **2018-2021**
Department of Chemistry, Northwestern University
More Research virtual career panel, Volunteer **2018**
Outreach Program by PLU, Department of Chemistry, Northwestern University

TEACHING AND MENTORING

Mentoring:

Abigail J Mullen *Ph.D. graduate student from University of Rochester* **2024-present**
Zhao Yang *undergraduate from University of Rochester* **2024-present**
Emma R. Evereth *undergraduate from University of Rochester* **2024-present**
Malia Dickinson *undergraduate from University of Rochester* **2024-present**
David Ren *undergraduate from University of Rochester* **2024-present**
Yuxu Feng *undergraduate from University of Rochester* **2024-present**

Rebekah Reynolds *Ph.D. graduate student from Northwestern University* **2021**
Jonic (Zhehao) Zhu *undergraduate from Northwestern University* **2019-2020**
Yue Wu *Ph.D. graduate student from Northwestern University* **2019-2020**
Muwen Yang *Ph.D. graduate student from Northwestern University* **2019-2020**

Teaching:

Biophysical Chemistry, Chem 402, Instructor **Fall 2024**
Spectroscopy Techniques Applied to Biological Systems, Chem 461, Instructor **Fall 2024**
Department of Chemistry, University of Rochester.

Accelerated General Inorganic Chemistry Laboratory 181, Lab TA **Fall 2016**
General Chemistry Laboratory 122, Lab TA **Winter 2016**
Accelerated General Chemistry 151, Recitation TA **Winter 2017**
Advanced Laboratory: Molecular Electronic Spectroscopy 350 **Spring 2017 & 2018**
Department of Chemistry, Northwestern University.