

# Stanford

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## Anqi Zhang

Postdoctoral Scholar, Chemical Engineering

### Bio

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#### BIO

Dr. Anqi Zhang is currently an American Heart Association (AHA) postdoctoral fellow advised by Professor Zhenan Bao in the Department of Chemical Engineering and Professor Karl Deisseroth in the Department of Bioengineering at Stanford University. She received her Ph.D. degree under the supervision of Professor Charles M. Lieber in the Department of Chemistry and Chemical Biology at Harvard University in 2020, and her B.S. degree in Materials Chemistry from Fudan University in 2014. She is interested in combining novel electronic, chemical, and genetic tools to monitor and modulate neural circuits in a minimally invasive manner.

#### PROFESSIONAL EDUCATION

- Master of Arts, Harvard University (2017)
- Doctor of Philosophy, Harvard University (2020)
- Ph.D., Harvard University , Chemistry (2020)
- M.A., Harvard University , Chemistry (2017)
- B.S., Fudan University , Materials Science (2014)

#### STANFORD ADVISORS

- Zhenan Bao, Postdoctoral Faculty Sponsor
- Zhenan Bao, Postdoctoral Research Mentor

### Research & Scholarship

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#### LAB AFFILIATIONS

- Karl Deisseroth (8/17/2020)
- Zhenan Bao (8/17/2020)

### Publications

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#### PUBLICATIONS

- **Biochemically functionalized probes for cell-type-specific targeting and recording in the brain.** *Science advances*  
Zhang, A., Zwang, T. J., Lieber, C. M.  
2023; 9 (48): eadk1050
- **Spiral NeuroString: High-Density Soft Bioelectronic Fibers for Multimodal Sensing and Stimulation.** *bioRxiv : the preprint server for biology*  
Khatib, M., Zhao, E. T., Wei, S., Abramson, A., Bishop, E. S., Chen, C., Thomas, A., Xu, C., Park, J., Lee, Y., Hamnett, R., Yu, W., Root, et al  
2023

- **Genetically targeted chemical assembly of polymers specifically localized extracellularly to surface membranes of living neurons.** *Science advances*  
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2023; 9 (32): eadi1870
- **Ultraflexible endovascular probes for brain recording through micrometer-scale vasculature.** *Science (New York, N.Y.)*  
Zhang, A., Mandeville, E. T., Xu, L., Stary, C. M., Lo, E. H., Lieber, C. M.  
2023; 381 (6655): 306-312
- **A CMOS-based highly scalable flexible neural electrode interface.** *Science advances*  
Zhao, E. T., Hull, J. M., Mintz Hemed, N., Ulu#an, H., Bartram, J., Zhang, A., Wang, P., Pham, A., Ronchi, S., Huguenard, J. R., Hierlemann, A., Melosh, N. A.  
2023; 9 (23): eadf9524
- **Tissue libraries enable rapid determination of conditions that preserve antibody labeling in cleared mouse and human tissue.** *eLife*  
Zwang, T. J., Bennett, R. E., Lysandrou, M., Woost, B., Zhang, A., Lieber, C. M., Richardson, D. S., Hyman, B. T.  
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- **Nanowire-enabled bioelectronics** *NANO TODAY*  
Zhang, A., Lee, J., Lieber, C. M.  
2021; 38
- **Nanowire probes could drive high-resolution brain-machine interfaces** *NANO TODAY*  
Zhang, A., Zhao, Y., You, S., Lieber, C. M.  
2020; 31
- **Scalable ultrasmall three-dimensional nanowire transistor probes for intracellular recording** *NATURE NANOTECHNOLOGY*  
Zhao, Y., You, S., Zhang, A., Lee, J., Huang, J., Lieber, C. M.  
2019; 14 (8): 783-+
- **Specific detection of biomolecules in physiological solutions using graphene transistor biosensors** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Gao, N., Gao, T., Yang, X., Dai, X., Zhou, W., Zhang, A., Lieber, C. M.  
2016; 113 (51): 14633-38
- **Epitaxial Growth of Lattice-Mismatched Core-Shell TiO<sub>2</sub>@MoS<sub>2</sub> for Enhanced Lithium-Ion Storage** *SMALL*  
Dai, R., Zhang, A., Pan, Z., Al-Enizi, A. M., Elzatahry, A. A., Hu, L., Zheng, G.  
2016; 12 (20): 2792-2799
- **Synthesis, Study, and Discrete Dipole Approximation Simulation of Ag-Au Bimetallic Nanostructures** *NANOSCALE RESEARCH LETTERS*  
Hu, Y., Zhang, A., Li, H., Qian, D., Chen, M.  
2016; 11: 209
- **Spontaneous Internalization of Cell Penetrating Peptide-Modified Nanowires into Primary Neurons** *NANO LETTERS*  
Lee, J., Zhang, A., You, S., Lieber, C. M.  
2016; 16 (2): 1509-1513
- **Nano-Bioelectronics** *CHEMICAL REVIEWS*  
Zhang, A., Lieber, C. M.  
2016; 116 (1): 215-257
- **Nanowires: Building Blocks for Nanoscience and Nanotechnology** *NANOWIRES: BUILDING BLOCKS FOR NANOSCIENCE AND NANOTECHNOLOGY*  
Zhang, A., Zheng, G., Lieber, C. M.  
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- **Hyaluronan/Tween 80-assisted synthesis of silver nanoparticles for biological application** *JOURNAL OF NANOPARTICLE RESEARCH*  
Li, H., Zhang, A., Sui, L., Qian, D., Chen, M.  
2015; 17 (2)
- **Semiconductor nanowires for biosensors** *Semiconductor Nanowires: Materials, Synthesis, Characterization and Applications*  
Zhang, A., Zheng, G.  
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● **Kinetically-controlled template-free synthesis of hollow silica micro-/nanostructures with unusual morphologies** *NANOTECHNOLOGY*

Zhang, A., Li, H., Qian, D., Chen, M.

2014; 25 (13): 135608

● **pH-Dependent shape changes of water-soluble CdS nanoparticles** *JOURNAL OF NANOPARTICLE RESEARCH*

Zhang, A., Tan, Q., Li, H., Sui, L., Qian, D., Chen, M.

2013; 16 (1)

● **Simulated optical properties of noble metallic nanopolyhedra with different shapes and structures** *EUROPEAN PHYSICAL JOURNAL D*

Zhang, A., Qian, D., Chen, M.

2013; 67 (11)

● **Morphology-controllable synthesis of ZnO nano-/microstructures by a solvothermal process in ethanol solution** *CRYSTAL RESEARCH AND TECHNOLOGY*

Zhang, A., Zhang, L., Sui, L., Qian, D., Chen, M.

2013; 48 (11): 947-955

● **Reducing Properties of Polymers in the Synthesis of Noble Metal Nanoparticles** *POLYMER REVIEWS*

Zhang, A., Cai, L., Sui, L., Qian, D., Chen, M.

2013; 53 (2): 240-276

● **Large-scale synthesis and self-organization of silver nanoparticles with Tween 80 as a reductant and stabilizer** *NANOSCALE RESEARCH LETTERS*

Li, H., Zhang, A., Hu, Y., Sui, L., Qian, D., Chen, M.

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