

# Tianran Zhang, Ph.D. candidate

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## Experience

- 2019 – . . . . **Ph.D. graduate student**, Department of Chemistry, The University of Hong Kong, HK.  
Synthesized colloidal particles for self-assembly.  
Synthesized active colloids.  
Studied the non-equilibrium behaviour of active colloids.  
Studied Surface Evolver for simulation of the wetting-dewetting process.
- 2015 – 2019 **Undergraduate Research**, Department of Chemistry, Jilin University, China.
- BIOMOD Biomolecular Design Competition**  
Held at University of California, San Francisco.

## Education

- 2019 – . . . . **Ph.D., The University of Hong Kong**  
Under supervision of Dr. Yufeng Wang. <https://wanglab.hku.hk>
- 2018 Autum **Exchange, Rutgers University**
- 2015 – 2019 **B.Sc. Chemistry, Jilin University**  
GPA: 3.75/4.0 or 90.37/100.0

## Research Publications

### First-author Publications

- [3] **T. Zhang**, D. Lyu, W. Xu, B. Ken, W. Duan, and Y. Wang, "Janus Particles with Tunable Patch Symmetries and Assembly of Chiral Colloidal Clusters", Coming soon...
- [2] **T. Zhang**, D. Lyu, W. Xu, Y. Mu, and Y. Wang, "Programming Self-Assembled Materials with DNA-Coated Colloids", Front. Phys., 2019, 9.
- [1] **T. Zhang**, X. Zhi, S. Guan, X. Li, Z. Qu, L. Qin, C. Hou, and J. Liu, "Construction of a reconfigurable DNA nanocage for encapsulating a TMV disk", Chem. Commun., 2019, 55, 8951-8954.

### Papers with Significance Contributions

- [2] D. Lyu, W. Xu, J. E. L. Payong, **T. Zhang**, and Y. Wang, "Low-Dimensional Assemblies of Metal-Organic-Framework Particles and Mutually Coordinated Anisotropy", Nat. Commun., 2022, 13, 3980.
- [1] S. Wang, R. Li, Y. Qing, Y. Wei, Q. Wang, **T. Zhang**, C. Sun, Y. Qin, D. Li, and J. Yu, "Antibacterial Activity of Ag-Incorporated Zincosilicate Zeolite Scaffolds Fabricated by Additive Manufacturing", Inorg. Chem. Commun., 2019, 105, 31-35

## Skills

- Programming **■** C, C++, Fortran, Python, Matlab, HTML/CSS, LaTeX.
- Simulation **■** Surface Evolver, Molecular Dynamics, Monte Carlo Simulation.
- Synthesis **■** Micrometer-scale colloids, active colloids, metal-organic framework


## Awards and Honors

### Awards and Achievements

- 2019 **■ Lee Shau Kee Postgraduate Fellowship**, The University of Hong Kong.

## Awards and Honors (continued)

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2017      **Silver Award in BIOMOD Biomolecular Design Competition**, UCSF. (as a teammate in NANO-JLU)