

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 novel colloidal particles for self-assembly.
Developed unconventional 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.
- International Biomolecular Design Competition**
Held at University of California, San Francisco.
Under supervision of Dr. Shuwen Guan and Dr. Chunxi Hou.
Designed the DNA origami via CADNANO and synthesized the DNA origami cage.
Worked in a team Nano-JLU. <http://biomod.net/winners/2017.html>
- Final Year Project**
Under supervision of Dr. Wenfu Yan.
Synthesized double-layered material for pollutant treatment.

Education

- 2019 – **Ph.D., The University of Hong Kong**
Under supervision of Dr. Yufeng Wang. <https://wanglab.hku.hk>
- 2018 Autum **Exchange, Rutgers University**
Under supervision of Dr. Kibum Lee. <https://kblee.rutgers.edu>
- 2015 – 2019 **B.Sc. Chemistry, Jilin University**
Thesis title: *Intercalation reactions of non-LDHs cationic inorganic layered materials*.
Tang Aoqing Honors Program. <https://facebook.com/jlutaq/>
GPA: 3.75/4.0 or 90.37/100.0

Research Publications

First-author Publications

- [4] **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...
- [3] **T. Zhang**, D. Lyu, W. Xu, Y. Mu, and Y. Wang, "Programming Self-Assembled Materials with DNA-Coated Colloids", *Front. Phys.*, 2019, 9.
- [2] **T. Zhang**, H. Yu, W. Wang, P. Bai, K. Jin, J. Zhang, and W. Yan, "Removal of Anionic Dyes from Aqueous Solution with Layered Cationic Aluminum Oxyhydroxide", *Chemical Research in Chinese University*, 2022, 38, 1532-1541.
- [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	📖	Metal-organic framework, inorganic double-layered material, micrometer-scale colloids, active colloids, DNA origami.

Awards and Honors

Awards and Achievements

2019	📖	Lee Shau Kee Postgraduate Fellowship , The University of Hong Kong.
2018	📖	Silver Award in Mathematical Modelling Competition , Jilin Province.
2017	📖	Silver Award in Internation Biomolecular Design Competition , UCSF.

References

Available on Request