Tian Tian

HCI D120

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Education

PhD Candidate

October 2015-Current

Department of Chemistry and Applied Biosciences, ETH Zürich

M.Sc. of Chemistry

August 2012-July 2015

Department of Chemistry, Tsinghua University

B.Sc. of Chemical Biology

August 2008-July 2012

Department of Chemistry, Tsinghua University

Minor in Computer Technology and Application

August 2010-July 2012

Department of Computer Science and Technology, Tsinghua University

Research Experience

Doctoral Projects

2015-Current

Supervisor: Prof. Chih-Jen Shih (ETH Zürich, Switzerland)

Fundamental Research on Graphene and Other Two-Dimensional Materials

- Modeling the penetration of an electric displacement field through graphene 2D electron gas.
- Modeling the wetting properties on charged graphene surface
- Graphene-gating based organic electronic devices

Master Work 2012-2015

Supervisor: Prof. Guangtao Li (Tsinghua University, China)

Thesis Title: Research of Multi-functional Photonic Crystal Systems Based on Chemical Reaction

- Maleimide-containing responsive polymer inverse opal and its application in assaying of acetylcholinesterase
- \bullet Chemical and structural complexity in colloidal crystal beads using etching-reaction approach
- Multi-functional pattern formation in 3D photonic crystal film using alternative photolysis-reaction strategy

Laboratory Internship

Summer 2012

Supervisor: Prof. Bart Jan Ravoo (WWU Münster, Germany)

 $\label{eq:Research Topic: Synthesis of Guest Molecules with Tri-Responsiveness in Cyclodextrin Vesicle Linking$

Bachelor Work 2011-2012

Supervisor: Prof. Guangtao Li (Tsinghua University, China)

Thesis Title: Synthesis of Functional Main-Chain Bile Acid Polymer by Click Reaction

- Synthesis of main-chain bile acid polymers using Cu-free click chemistry with improvement of stereo selectivity
- Supramolecular assembly of main-chain bile acid polymers

Research Interests

• Computational simulation of interfacial properties.

- Two-dimensional materials
- Self assembly in varied scales
- Organic synthesis with rational design

Academic Awards

• Teijin Academic Scholarship (first-class academic scholarship) October 2014

• Outstanding Graduate of Tsinghua University

July 2012

• Tsinghua School Scholarship for elite students

January 2012

• First-class National Scholarship November 2011

• Third-class Academic Scholarship November 2010

• Dingye Mailin Academic Scholarship November 2009

Language Level English (IELTS score: 7.5, tested on November 2014)

Publications

- 1. Tian, T.; Rice, P. Santos, E.J.; Shih, C.-J. Nano Lett. 2016, 16, 5044-5052.
- Tian, T.; Gao, N.; Gu, C.; Li, J.; Wang, H.; Lan, Y.; Yin, X.; Li, G.; ACS Appl. Mater. Interfaces 2015, 7, 19516-19525.
- 3. **Tian, T.**; Li, X.; Cui, J.; Li, J.; Lan, Y.; Wang, C.; Zhang, M.; Wang, H.; Li, G. *ACS Appl. Mater. Interfaces* **2014**, *50*, 15456-15465.
- 4. Wang, H.; Zhu, W.; Li, J.; **Tian, T.**; Lan, Y.; Gao, N.; Wang, C.; Zhang, M.; Faul, C. F.; Li, G. Chem. Sci. **2015**, 6, 1910-1916.
- 5. Zhang, M.; Yin, X.; **Tian, T.**; Liang, Y.; Li, W.; Lan, Y.; Li, J.; Zhou, M.; Ju, Y.; Li, G. *Chem. Commun.* **2015**, *51*, 10210-10213.
- Wang, C.; Shang, J.; Lan, Y.; Tian, T.; Wang, H.; Gu, J.-Y.; Liu, J. Z.; Wan L.-J.; Zhu, W.; Li, G. Adv. Funct. Mater. 2015, 25, 6009-6017.
- Li, W.; Tian, T.; Lan, Y.; Zhu, W.; Li, J.; Zhang, M.; Ju, Y.; Li, G. Polym. Chem. 2014, 5, 743-751.
- 8. Wang, C.; Zhu, W.; Lan, Y.; Zhang, M.; **Tian, T.**; Wang, H.; Li, G. *J. Phys. Chem. C* **2014**, *118*, 10754-10763.
- 9. Xu, D.; Zhu, W.; Wang, C.; **Tian, T.**; Cui, J.; Li, J.; Wang, H.; Li, G. *Chem. Eur. J.* **2014**, *20*, 16620-16625.
- Xu, D.; Zhu, W.; Wang, C.; Tian, T.; Li, J.; Lan, Y.; Zhang, G.; Zhang, D.; Li, G. Chem. Commun. 2014, 50, 14133-14136.
- Yang, H.; Li, X.; Lan, Y.; Tian, T.; Cui, J.; Zhu, T.; Shen, D.; Li, G. J. Mater. Chem. C 2013, 1, 6120-6128.
- 12. Li, W.; **Tian, T.**; Zhu, W.; Cui, J.; Ju, Y.; Li, G. *Polym. Chem.* **2013**, 4, 3057-3068.
- 13. Zhu, T.; Xu, D.; Wu, Y.; Li, J.; Zhou, M.; **Tian, T.**; Jiang, Y.; Li, F.; Li, G. *J. Mater. Chem. B* **2013**, *1*, 6449-6458.
- Li, X.; Peng, L.; Cui, J.; Li, W.; Lin, C.; Xu, D.; Tian, T.; Zhang, G.; Zhang, D.; Li, G. Small 2012, 8, 612-618.