Tian Tian

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Education

PhD Candidate October 2015, Expected Graduation 2019
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
- 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)
Research Topic: Synthesis of Guest Molecules with Tri-Responsiveness in Cyclodextrin Vesicle Linking

Bachelor Work 2011-2012
Supervisor: Prof. Guangtao Li (Tsinghua Universtity, 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.**; Lin, S.; Li, S.; Zhao, L.; Santos E.;, Shih, C.-J. *Langmuir 33* pp 1282712837
2. **Tian, T.**; Shih, C.-J. *Ind. Eng. Chem. Res.* **2017**, *56*, 10552-10581.
3. **Tian, T.**; Rice, P. Santos, E.J.; Shih, C.-J. *Nano Lett.* **2016**, *16*, 5044-5052.
4. **Tian, T.**; Gao, N.; Gu, C.; Li, J.; Wang, H.; Lan, Y.; Yin, X.; Li, G.; *ACS Appl. Mater. Interfaces* **2015**, *7*, 19516-19525.
5. **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.
6. Wang, Y.; **Tian, T.**; Cabane, E. *ACS Sustainable Chem. Eng.* **2017**, 10.1021/acssuschemeng.7b03104
7. Sudhir K.; Jagielski, J.; Kallikounis, N.; Kim, Y.-H.; Wolf, C.; Jenny, F.; **Tian Tian**.; Hofer, C.; Chiu, Y.-C.; Stark, W.; Lee, T.-W.; Shih, C.-J. *Nano Lett.* **2017**, *17* 5277-5284.
8. Gao,N. **Tian, T.**; Cui, J.; Zhang, W.; Yin, X.; Wang, S.; Ji, J.; Li, G. *Angew. Chem. Int. Ed.* **2017**, *56*, 3880-3885.
9. 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.
10. 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.
11. 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.
12. Li, W.; **Tian, T.**; Lan, Y.; Zhu, W.; Li, J.; Zhang, M.; Ju, Y.; Li, G. *Polym. Chem.* **2014**, *5*, 743-751.
13. Wang, C.; Zhu, W.; Lan, Y.; Zhang, M.; **Tian, T.**; Wang, H.; Li, G. *J. Phys. Chem. C* **2014**, *118*, 10754-10763.
14. Xu, D.; Zhu, W.; Wang, C.; **Tian, T.**; Cui, J.; Li, J.; Wang, H.; Li, G. *Chem. Eur. J.* **2014**, *20*, 16620-16625.
15. Xu, D.; Zhu, W.; Wang, C.; **Tian, T.**; Li, J.; Lan, Y.; Zhang, G.; Zhang, D.; Li, G. *Chem. Commun.* **2014**, *50*, 14133-14136.
16. Yang, H.; Li, X.; Lan, Y.; **Tian, T.**; Cui, J.; Zhu, T.; Shen, D.; Li, G. *J. Mater. Chem. C* **2013**, *1*, 6120-6128.

17. Li, W.; **Tian, T.**; Zhu, W.; Cui, J.; Ju, Y.; Li, G. *Polym. Chem.* **2013**, *4*, 3057-3068.

18. 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.

19. 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.