

# Fangyuan Tian

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## EDUCATION

<b>Ph.D. in Analytical Chemistry</b> University of Delaware, Newark, DE	Aug. 2013
<b>B.E. in Polymer Chemistry</b> Minor in Biotechnology Jilin University, Changchun, Jilin Province, China	June 2008

## PROFESSIONAL EMPLOYMENT

Associate Professor, California State University Long Beach	08/21-Present
Assistant Professor, California State University Long Beach	08/15-07/21
Post-doctoral Research and Teaching Associate, University of San Diego	09/13-07/15

## AWARD

NSF CAREER Award	2022
Early Academic Career Excellence Award, CSULB	2020
ACS Petroleum Research Fund Undergraduate New Investigator Award	2018
ACS Dan Su Award	2014
CAS Dean's Doctoral Student Summer Scholar, University of Delaware	2013
Professional Development Award, University of Delaware	2012

## PUBLICATION & PATENT

1. Weber, M. D. R.; Baker, T. L.; Dao, B.; Kwon, C.; Tian, F. Exploring the aggregative growth of nanoporous zeolitic imidazolate framework ZIF-8. *Crystal Growth & Design*, **2020**, 20, 2305-2312.
2. Pham, H.; Ramos, K.; Sua, A.; Acuna, J.; Slowinska K.; Nguyen, T.; Bui, A.; Weber, M. D. R.; Tian, F. Tuning crystal structures of iron-based metal-organic frameworks for drug delivery applications. *ACS Omega*, **2020**, 5, 3418-3427.
3. Aldrich, J. A.; Rousselto, S. M.; Yang, M. L.; Araiza, S. M.; Tian, F. Adsorptive separation of methane from carbon dioxide by zeolite@ZIF composite. *Energy Fuels*, **2019**, 33, 348-355.
4. Ishihara, K. M.; Tian, F. Semiconducting Langmuir-Blodgett films of porphyrin paddle-wheel frameworks for photoelectric conversion. *Langmuir*, **2018**, 34, 15689-15699.
5. Chin, M.; Cisneros, C.; Araiza, S. M.; Vargas, K. M.; Ishihara, K. M.; Tian, F. Rhodamine B degradation by nanosized zeolitic imidazolate framework-8 (ZIF-8). *RSC Adv.*, **2018**, 8, 26987-26997.

6. Ruiz, A. M.; Sua, A.; Tian, F. Covalent attachment of metal-organic frameworks to surfaces. In: Wandelt, K., (Ed.) *Encyclopedia of Interfacial Chemistry: Surface Science and Electrochemistry*, **2018**, 4, 646–671.
  7. Mosier, A. M.; Larson, H. L. W.; Webster, E. R.; Ivos, M.; Tian, F.; Benz, L. Low-temperature adsorption and diffusion of methanol in ZIF-8 nanoparticle films. *Langmuir*, **2016**, 32, 2947-2954.
  8. Tian, F.; Mosier, A.M.; Park, A.; Webster, E.R.; Cerro, A.M.; Benz, L. In situ uptake measurements of CO<sub>2</sub> and H<sub>2</sub>O by nanoporous ZIF-8 thin films. *J. Phys. Chem. C*. **2015**, 119, 15248-15253.
  9. Cui, Y.; Tian, F.; Gao, F.; Teplyakov, A.V. Passivating silicon surfaces by fluorine containing organic molecular monolayers. *J. Phys. Chem. C*. **2014**, 118, 26721-26728.
  10. Tian, F.; Cerro, A.M.; Mosier, A.M.; Wayment-Steele, H.K.; Shine, R.S.; Park, A.; Webster, E.R.; Johnson, L.E.; Johal, M.S.; Benz, L. Surface stability and characterization of a nanoporous ZIF-8 thin film. *J. Phys. Chem. C*. **2014**, 118, 14449-14456.
  11. Wayment-Steele, H.K.; Johnson, L.E.; Tian, F.; Dixon, M.C.; Benz, L.; Johal, M.S. Monitoring N<sub>3</sub> dye adsorption and desorption on TiO<sub>2</sub> surfaces: QCM-D and XPS studies. *ACS Appl. Mater. Interfaces*, **2014**, 6, 9093-9099.
  12. Tian, F., Cui, Y., Teplyakov, A.V. “Nitroxidation of H-terminated Si(111) surfaces with nitrobenzene and nitrosobenzene”, *J. Phys. Chem. C*, **2014**, 118(1), 502-512.
  13. Tian, F.; Teplyakov, A.V. Silicon surface functionalization targeting Si-N linkages. *Langmuir*, **2013**, 29, 13-28.
  14. Tian, F.; Yang, D.; Opila, R.L.; Teplyakov, A.V. Chemical and electrical passivation of Si(111) surfaces. *Appl. Surf. Sci.*, **2012**, 258, 3019-3026.
  15. Tian, F.; Taber, D.F.; Teplyakov, A.V. –HN- termination of the Si(111) surface by wet chemistry. *J. Am. Chem. Soc.* **2011**, 133, 20769-20777.
  16. Tian, F.; Ni, C.; Teplyakov, A.V. Integrity of functional self-assembled monolayers on hydrogen-terminated silicon-on-insulator wafers. *Appl. Surf. Sci.* **2010**, 257, 1314-1318.
- PATENT:** Tian, F.; Taber, D. F.; Teplyakov, A. V. –NH- terminated silicon surface and a method for its preparation. *US Patent* 9, 272, 914, **2016**.

### **ONGOING SUPPORT**

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|---|-------------------------|
| ACS PRF UNI (PI)  | 01/01/2019 – 08/31/2022 |
| <b>Designing surface supportive zeolitic imidazolate frameworks for purifying natural gas</b>             |                         |
| NIH SCORE SC3 (#1SC3GM136590, PI)   | 09/11/2020 – 08/31/2024 |
| <b>Porous inorganic framework thin film as drug-eluting stent coating</b>                                 |                         |
| NSF CAREER Award (#DMR-2144938, PI)   | 04/01/2022 – 03/31/2027 |
| <b>CAREER: Surface chemistry of crystalline coordination networks</b>                                     |                         |
| NSF MRI (#CHEM-2117040, co-PI)  | 09/01/2021 – 08/31/2024 |
| <b>MRI: Acquisition of an atomic force microscope for materials science research and student training</b> |                         |
| NSF MRI (#DMR-2018653, Senior Personnel)  | 09/01/2020 – 08/31/2023 |
| <b>MRI: Acquisition of an atomic force microscope for materials science research and student training</b> |                         |

**FINISHED SUPPORT**

Environment Research and Education Foundation (PI) 10/01/2017 – 10/31/2021  
**Renewable energy from waste: A study of landfill gas purification by hybrid porous materials**

NSF MRI (#CHEM-1828334, co-PI) 08/01/2018 – 07/31/2021  
**MRI: Acquisition of a surface plasmon resonance microscopy system for interdisciplinary research and research training**