

# Fangyuan Tian

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## EDUCATION

<b>Ph.D. in Analytical Chemistry</b> University of Delaware, Newark, DE <b>Thesis:</b> Modification of Semiconductor Surfaces with Organic Molecules by Wet-Chemistry Approaches <b>Advisor:</b> Andrew V. Teplyakov	07/08 – 08/13
<b>B.E. in Polymer Science &amp; Engineering</b> Minor in Biotechnology Jilin University, Changchun, Jilin Province, China	09/04 – 06/08

## PROFESSIONAL EMPLOYMENTS

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

## COURSES TAUGHT

<b>California State University Long Beach</b>	
CHEM 451 & 451L: Instrumental Methods of Analysis	Fall 2015-Present
<b>University of San Diego</b>	
CHEM 151: General Chemistry	Spring 2015
CHEM 151L: General Chemistry Lab	Spring 2014

## PEER-REVIEWER

PCCP; Appl. Surf. Sci.; Chem. Comm.; Cat. Comm.; Dalton Trans.; J. Mater. Chem. A

## PROFESSIONAL AFFILIATIONS

American Chemical Society (ACS)  
American Vacuum Society (AVS)  
Council on Undergraduate Research (CUR)

## PUBLICATIONS & PATENT

\*Undergraduate researchers are underlined

1. 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 (12), 2947-2954.\*
2. **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 (27), 15248-15253\*
  3. Cui, Y., **Tian, F.**, Gao, F., Teplyakov, A.V., "Passivating silicon surfaces by fluorine containing organic molecular monolayers," *J. Phys. Chem. C*. **2014**, 118(46), 26721-26728\*
  4. **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(26), 14449-14456.\*
  5. 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(12), 9093-9099.\*
  6. **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.\*
  7. **Tian, F.**, Teplyakov, A.V., "Silicon surface functionalization targeting Si-N linkages," *Langmuir*, **2013**, 29 (1), 13-28 (**Feature Article, Cover Art**)
  8. **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
  9. **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
  10. **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
  11. **Tian, F.**, Yang, W., "Controlled architecture of Ru(phen)<sub>3</sub> doped silica nanoparticles," **2008**, B.E. Thesis, Jilin University, Changchun, China. (**University Honors Thesis**)

**PATENT:** **Tian, F.**, Taber, D. F., Teplyakov, A. V. New International PCT Patent for "An - NH- terminated silicon surface and a method for its preparation," Publication No. US20130287667 A1, Application No. US 13/989,479, Filing date: Nov. 21, 2011, Issue date: Oct. 31, **2013**

## **MOST RECENT CONFERENCES & WORKSHOPS**

1. Tian, F., Mosier, A. M., Larson, H. W., Webster, E. R., Ivos, M., Benz, L., "Adsorption of methanol on ZIF-8 thin films under low temperature and low pressure conditions", 251<sup>st</sup> ACS National Meeting, San Diego, March 2016
2. Tian, F., Cerro, A.M., Mosier, A.M., Wayment-Steele, H.K., Johnson, L.E., Shine, R.S., Park, A., Webster, E.R., Kehr, K., Larson, H., Johal, M.S., **Benz, L.**, "Surface reactivity of nanoporous ZIF-8 thin film toward energy-related gases", 248<sup>th</sup> ACS National Meeting, San Francisco, August 2014
3. Tian, F., Benz, L., "Chemical and Surface Science of Hybrid ZIF-8 Thin Films", San Francisco, August 2014