

# YB Lab Curriculum

## Xiaofeng Huang

Assistant Research Professor – 2018

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Hometown: Shanghai, China

### EDUCATION

- 2006-2010 Bachelor, Tongji University
- 2010-2015 Ph.D., Tongji University
- 2015-2017 Post doctoral, Shanghai Tech University

### PERSONAL INFORMATION

Good good study, day

### RESEARCH INTERESTS

Electrochemical conversion of CO<sub>2</sub> to hydrocarbon fuels, nanomaterials

### PUBLICATIONS

- Huang, X. F.; Shen, Q.; Liu, J. B.; Yang, W. J.; Zhao, G. H. Biomimetic Pt-Enhanced Semiconductor/Metal Complex Hybrid Photoelectrocatalytic Conversion of CO<sub>2</sub> to Formate Production. *Energy Environ. Sci.* 2016, 9, 3461-3471.
- Huang, X. F.; Cao, J. C.; Li, M. C.; Guo, C. Y.; Zhao, G. H. High-yield and Selective Synthesis of Formate from CO<sub>2</sub> on TiO<sub>2</sub> Nanotube Array. *Energy Environ. Sci.* 2013, 6, 2643-2644.
- Huang, X. F.; Zhao, G. H.; Li, M. C.; Li, F. T.; Qiao, J. L.; Zhao, S. C. Highly Sensitive Electrochemical Determination of 1-Naphthol Based on High-index Facet SnO<sub>2</sub> modified electrode. *Electrochim. Acta*, 2012, 83, 478-484.
- Shen, Q.; Huang, X. F.; Liu, J. B.; Guo, C. Y.; Zhao, G. H. Biomimetic Photoelectrocatalytic Conversion of Greenhouse Gas Carbon Dioxide: Two-electron Reduction for Efficient Formate Production. *Appl. Catal. B: Environ.*, 2017, 201, 70-76.
- Shen, Q.; Chen, Z. F.; Huang, X. F.; Liu, M. C.; Zhao, G. H. High-yield and Selective Photoelectrocatalytic Reduction of CO<sub>2</sub> to Formate by Metallic Copper Decorated Co<sub>3</sub>O<sub>4</sub> Nanotube Arrays. *Environ. Sci. Technol.*, 2015, 49: 5825-5835.
- Zhang, Y. J.; Zhao, G. H.; Shi, H. J.; Zhang, Y. N.; Huang, W. N.; Huang, X. F.; Wu, Z. Y. Photoelectrocatalytic Glucose Oxidation to Promote Hydrogen Production over Periodically Ordered TiO<sub>2</sub> Nanotube Arrays Assembled of Pd Quantum Dots. *Electrochim. Acta*, 2015, 174, 93-101.
- Zhang, Y. J.; Zhao, G. H.; Zhang, Y. N.; Huang, X. F.; Highly Efficient Visible-light-driven Photoelectrocatalytic Selective Aerobic Oxidation of Biomass alcohols to Aldehydes. *Green. Chem.*, 2014, 16, 3860-3869.

#### ■ PRESENTATIONS

International Seminar on Aerogels-2014(Hamburg, Germany): 2014.10.03-12

Oral Presentation: "Assembling and Characterization of Photoelectrocatalysts on Carbon Aerogel"

#### ■ FELLOWSHIPS AND AWARDS:

#### ■ PROFESSIONAL SKILLS

Devices: Electrochemical workstation, gas/liquid chromatography, UV, IR, Raman, XRD, SEM, AFM.

Software: Materials Studio