

Yangzhi Zhao

Renewable energy | Li-ion battery | electrochemistry
Coolbaugh 216, 14th street, Colorado school of Mines, Golden, CO 80401, USA
Cell phone: +1(303) 479-8871, email: yzhao@mines.edu

Education:

Colorado School of Mines (CSM) PH.D. Candidate in Materials Science	Golden, USA 08/2014-present
East China University of Science and Technology (ECUST) B.S. in Polymer Science and Engineering	Shanghai, China 09/2010-07/2014

Honors and Awards

TA tuition fellowship	08/2014-present
Honored graduate award of East China University of Science and technology	06/2014

Research Experience

Department of Chemistry and Geochemistry, Colorado School of Mines, Golden, CO <i>Doctoral research</i>	08/2014-present
---	-----------------

Advisor: Dr. Yongan Yang

- Systematic study of redox behavior of alcohol on noble metals by electrochemical techniques for alcohol fuel cells applications.
- Synthesis of lithium silicide Li_xSi ($x=3.75, 4.4$) and investigation of its battery performance
- Proof-of-concept study on working conditions for Dual ion intercalation battery with aqueous electrolyte system.
- Development of high-performance alkali metal sulfide cathodes for Li-S batteries via advanced materials synthesis and electrode fabrication

Department of Materials Science and Engineering, ECUST, Shanghai, China

<i>Undergraduate research</i>	05/2012-06/01-2014
-------------------------------	--------------------

Advisor: Dr. Xin Chen and Prof. Guiyou Wang

- Synthesis of high-quality boron-carbon nanowires under series of conditions such as different metal catalyst precursors, various annealing time and temperatures, and surface modification of as-synthesized nanowires and its application in super-capacitor
- Synthesis of multi-functional polyurethane by click chemistry reaction

Teaching and Mentoring Experiences

Teaching Assistant, General Chemistry 1&2 lab, CSM, Golden, CO	2014-2016
Teaching Assistant, Organic Chemistry 1 lab, CSM, Golden, CO	2016-2017
Graduate Mentor, Research Experience for Undergraduates (REU) program, CSM, Golden, CO	Summer, 2015 and 2016

Publications

1. **Y. Zhao**, X. Li, J.M. Schechter, Y. Yang, Revisiting the oxidation peak in the cathodic scan of the cyclic voltammogram of alcohol oxidation on noble metal electrodes, 2016 RSC Adv., 2016, 6, 5384–5390.
2. X. Li, **Y. Zhao**, A. Brennan, M. McCeig, C. A. Wolden, Y. Yang, Reactive Precipitation of Anhydrous Alkali Sulfide Nanocrystals with Concomitant Abatement of Hydrogen Sulfide and co-Generation of Hydrogen, ChemSusChem (2017), accepted.

Conferences

Poster presenter, International School for Materials for Energy and Sustainability, Caltech, Pasadena, CA	07/2017
Poster presenter, Conference on Earth and Energy Research(CEER), CSM, Golden, CO	03/2016

Speaker, Golden Catalyst Workshop, CSM and NREL, Golden, CO

12/2015

Other activities

Participate in Mines Solar Decathlon Team and Tiny House Project

02/2016

Visit Glasgow Caledonia University (GCU) in school's delegation

08/2012