Ziqi Liu

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Education

PhD, Mechanical Engineering Aug. 2017 - now
University of California, Merced, CA GPA: 3.69/4.0
Courses: Transport Phenoma,Fuel Cell Fundamentals, Modeling and Diagnostic etc.

Master of Science, Materials Engineering Aug. 2014 - May. 2016
University of Southern California, Los Angeles, CA GPA: 3.44/4.0
Courses: Basics of Atomistic Simulation of Materials, etc.

Bachelor of Science, Material Chemistry Sep. 2010 - Jul. 2014
Qingdao University of Science and Technology, China GPA: 3.10/4.0
Courses: Material Surface and Interface Chemistry, etc.

Research Experience

ORR for Crabon based transition metal materials Aug. 2017 - Now
University of California, Merced, CA
- Synthesis and fabrication of carbon based transition metal materials.
- Improvemrent of the Oxygen Reduction Reaction catalytic properties.

Skills: EC-lab, SEM, TEM, ALD

Basics of Atomistic Simulation of Materials Aug. 2015 - Dec. 2015
University of Southern California, Los Angeles, CA
- Building a parallel computer from components.
- Monte Carlo and molecular dynamic simulation project were designed for computing the structural and the transport properties and thermodynamics.

Skills: Fortran, Unix/Linux

The Graphene/Nickel Materials' Electrocatalytic Activity For Methanol Oxidation in Alkaline Environment, Chinese National Natural Science Foundation Mar. 2014 - Jul. 2014
Supervised by Dr Lifeng Dong , Taishan Scholar, Professor, Qingdao University of Science and Technology.
- graphene-supported different proportion of Pt, Ni catalysts were prepared with ethylene glycol as the reducing agent.
- Cyclic voltammetry(CV), electrochemical impedance spectroscopy(EIS) and chronoamperometry were applied to measure the electrochemical property.

Skills: Electrochemical Workstation, SEM, TEM, Matlab

Controllable Synthesis and Electrichemical Property of two Dimensional Antimony Chalcogenide Nanomaterials, Journal of Alloys and Compounds(SCI) Jun. 2013 - Sep. 2013
Supervised by Rencheng Jin, PhD, Professor, School of Chemistry & Materials Science, Ludong University
- Employed polyacids and polyols as templates to prepare nanostructured Antimony Chalcogenide via hydrothermal/solvothermal method.
- Investigated the formation mechanism of these antimony chalcogenide nanomaterials.
- Measured the electrochemical property of antimony chalcogenide with different morphologies.

Skills: Electrochemical Workstation, SEM, TEM, Li-ion Batteries Test System

Conference

AiMES 2018 Meeting Sep 30.2018 - Oct 4.2018
Co-Embedded Carbon Nano-Polyhedron Supported on Functionalized Graphene Oxide for Efficient Oxygen Reduction Reaction

Publication

[1] Rencheng Jin, Ziqi Liu, Lixia Yang, Junshen Liu, Yanbin Xu, Guihua Li. Facile synthesis of sulfur doped Sb2Se3 nanosheets with enhanced electrochemical performance. Journal of Alloys and Compounds, 2013, 579, 209-217. (SCI)

[2] Lixia Yang, Feng Wang and Ziqi Liu. Fabrication and Characterization of Manganese Ferrite Nanospheres as a Magnetic Adsorbent of Chromium. Journal of Nanomaterials, 2013, Article ID 293464. (SCI)