

2016 Dissertation Titles

- A Modular Microscale Laboratory
- Single-wall Carbon Nanotubes Separation and their Device Application
- Engineering Artificial Cells to Elucidate GPCR Activity
- Comprehensive Study of Twinning Phenomena in Low and High Stacking Fault Energy Materials
- Understandings on Factors Affecting the Performances of Iron and Nickel Electrodes for Alkaline Nickel-Iron Batteries

2015 Dissertation Titles

- Modification of Electrode Materials for Lithium Ion Batteries
- Nanostructured Silicon for Lithium-ion Battery Anode
- Using X-ray Microbeam Diffraction to Dstudy the Long Range Internal Stresses in Plastically Deformed Matierials
- TiO₂ Passivated III-V Semiconductor Photocatalysis under Visible Illumination
- Nanostructured Silicon Anode and Sulfur Cathode for Lithium Rechargeable Batteries
- Chemical Vapor Deposition of Graphene and Two-dimensional Materials: Synthesis, Characterization, and Applications
- Synthesis and Property Study of Nanostructured Materials and Device Applications
- Mechanical Behavior and Microstructure Optimization of Nanocrystalline / Ultrafine-grained Aluminum Alloys and Composites

2014 Dissertation Titles

- Synthesis, Electrical and Optical Study of Semiconductor Nanowires
- Non-radiative Energy Transfer as a Paradigm for Photovoltaic Solar Energy Conversion: Lead Sulfide Quantum Dots on Silicon Nanopillars
- Nanomaterials Under Extreme Environments: A Study of Structural and Dynamic Properties Using Molecular Dynamics Simulations
- Development of Hybrid Optical Microcavities for Plasmonic Laser and Improving Biodetection
- Development of Optical Devices for Applications in Photonic Integrated Circuit and Sensing