Ying Tan

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EDUCATION

Purdue University, U.S.A. From: 09/2018
Ph.D. of Engineering in Chemical Engineering Anticipated Graduation Date: 05/2022
Thesis Co-Advisor: Dr. Bryan Boudouris & Dr. Brett Savoie
Research Project: Computational Design and Experimental Syntheses of Next-Generation Conducting Polymers

Zhejiang University, China 09/2014-06/2018
Bachelor of Engineering in Macromolecular Materials and Engineering
GPA: 3.83/4.00, **Major GPA**: 3.87/4.00

PREVIOUS RESEARCH EXPERIENCES

Students' Science and Technology Innovation Project, Zhejiang University
Selective Enrichment of Gold Nanoparticles Inside Kinetic Gel-grown Crystals Advisor: Prof. Hanying Li

- Employed supramolecular hydrogels to assist the incorporation process of gold nanoparticles into calcite single-crystals.
- Explored the interactions of nanoparticles, hydrogels and crystals, and verified the enriched and selective gold nanoparticles incorporation inside crystals via TGA, SEM and ICP-AES.

Global Engagement in Academic Research Program, North Carolina State University
Transparent Paper Devices for Point-of-Care Molecular Diagnostics Advisor: Prof. Qingshan Wei

- Fine-tuned concentrations of Triton X-100 to maximum the transparency of nitrocellulose paper.
- Confirmed the enhancement of detection limit of transparent nitrocellulose paper by Inverted microscope.
- Established a streptavidin-gold nanoparticles diagnostic model system on the transparent nitrocellulose paper, for rapid, portable, and quantitative transparent paper diagnostic devices.

Student Research Training Project (SRTP), Zhejiang University
PDA/APTES Coating on PP Separators for Heightened Li-ion Battery Performance Advisor: Prof. Zhikang Xu

- Fabricated a PDA/APTES coating on polypropylene separators via a facile co-deposition technique.
- Determined that 8 hours were the optimal PDA/APTES co-deposition time.
- Characterized the products via XPS, SEM, TGA, DMA, contact angle analysis, electrochemical tests to confirm enhanced surface morphology, wettability, thermal stability and battery performance.

PUBLICATIONS

Y. Liu; Y. Tan; H. Li*. Assessing the Synergy Effect of Additive and Matrix on Single-crystal Growth: Morphological Revolution Resulted from Gel-mediated Enhancement on CIT-calcite Interaction, *Chin. Chem. Lett.*, **2018**, 29, 1296–1300.

CONFERENCES & SYMPOSIUMS

Bayreuth Polymer Symposium, Bayreuth University, Germany 2017
NCSU Summer Symposium, North Carolina State University, USA 2017

ADDITIONAL INFORMATION

Technical: FTIR, SEM, UV-Vis, TGA, TMA, GPC, Inverted Microscope, Optical Microscope, Organic Synthesis, Polymerization Techniques, Crystallization, Contact Angle Measurement, Electrochemical Measurement
Computer Software: Origin, Matlab, Chemdraw, LANDdt, Graphpad Prism, Photoshop, Endnote