Guang Yang

Staff Scientist – Multimodal Spectroscopy & Imaging

Bio

Guang Yang’s interdisciplinary research focuses on probing and understanding underlying chemistry and physics of the electrolyte (including solid polymer) structures and solid-liquid & solid-solid interfaces for energy storage and conversion. These research interests are fulfilled by recent methodologies developed based on surface sensitive optical spectroscopy (SERS and TERS), hyperspectral imaging and its statistical analysis through machine learning/AI. He is striving to fill in the gap between fundamental science and materials R&D of significant technological importance in electrochemical systems, including:

* Next generation non-carbonate electrolytes for high energy density electrodes
* Polymer and composite electrolytes for alkali metal and non-aqueous redox flow batteries

**Education**

* Ph.D. Chemical Engineering, Florida State University, U.S. (2017)

Thesis topic: Facilitate Research in Lithium Batteries by Surface-enhanced Raman Spectroscopy (SERS)

* M.S. Advanced Materials, Ulm University, Germany (2011)
* B.S. Biomedical Engineering (minor medical electronics), Southeast University, China (2009)

**Research and Professional Experience:**

* Postdoc, Energy Storage Group, ORNL (2017-20)
* ASTRO Fellow, Energy Storage Group, ORNL (2016)
* Research Assistant, National High Magnetic Field Laboratory Chemical Engineering, Florida State University, U.S. (2013-16)
* Teaching Assistant, Florida State University, U.S. (2012-16)