

TEACHING EXPERIENCE

University of Delaware, Newark, DE

Fall 2016

- Teaching assistant for Fluid Mechanics

University of Delaware, Newark, DE

Sum. 2016

- Supervisor for NSF-REU student on optimizing a membraneless, two-phase flow battery

University of Delaware, Newark, DE

Spr. 2016

- Teaching assistant for Introduction to Chemical Engineering

PUBLICATIONS, PATENTS & PRESENTATIONS

- **Rose Xiaoya Ma**, Ke Gong, Brian Setzler, Shuang Gu, Yushan Yan. "A Cost-Effective, Model-Validated Zinc-Ferrocyanide Flow Battery for the Grid." [In preparation]
- **Rose Xiaoya Ma**, Ke Gong, Brian Setzler, Shuang Gu, Yushan Yan. "A Generalized Model for Designing High-Performance, Low-Cost Flow Batteries." [In preparation]
- Ke Gong, Fei Xu, Michael G. Lehrich, **Rose Xiaoya Ma**, Shuang Gu, Yushan Yan. "A Membraneless Zinc/Ferrocene Redox Flow Battery Based on Immiscible Organic-Inorganic Electrolytes." [Submitted]
- **Rose Xiaoya Ma**, Yushan Yan. "From Lab to Grid: A Generalized Voltage & Cost Modeling Tool for the Redox Flow Battery." [Poster] Advanced Research Projects Agency-Energy (ARPA-E) Energy Innovation summit, Washington, D.C., Feb. 29 – Mar. 2, 2016
- Ke Gong, Fei Xu, Jonathan B. Grunewald, **Xiaoya Ma**, Yun Zhao, Shuang Gu, and Yushan Yan. "All-Soluble All-Iron Aqueous Redox-Flow Battery." **ACS Energy Letters**. (2016). 1, 89-93.
- Ke Gong, **Xiaoya Ma**, Kameron M. Conforti, Kevin J. Kuttler, Jonathan B. Grunewald, Kelsey L. Yeager, Martin Z. Bazant, Shuang Gu and Yushan Yan. **Energy & Environmental Science**. (2015). 8, 2941-2945. [Impact factor: 25.427]
- Yushan Yan, Shuang Gu, Ke Gong, **Xiaoya Ma**. "A redox flow battery that uses zinc and iron redox pairs." [Patent, provisional application submitted]