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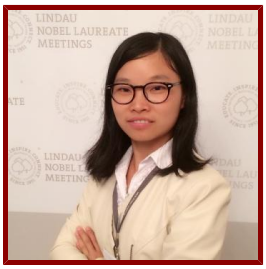

Xueli(Sherry) Zheng

Staff Scientist, Energy Sciences

Bio

BIO

Xueli (Sherry) Zheng is a Physical Science Research Scientist in the Department of Materials Science and Engineering at Stanford University. Dr. Zheng has over 10 years of experience in battery technology, electrochemistry, materials science, X-ray science, and catalysis. Throughout her career, she has published more than 50 peer-reviewed papers, with over 11,000 citations and an H-index 36 (according to Google Scholar). Her research focuses on 1) advancing the design, synthesis, and characterization of 2D nanomaterials, leveraging her extensive background and specialized expertise in materials synthesis and synchrotron X-ray spectroscopy/imaging characterization. 2) advanced synchrotron-based characterization techniques, particularly for studying interfaces, surfaces, and nanomaterial properties. These include in situ measurements to explore catalytic reactions, lithium metal batteries, and aqueous battery systems. 3) decarbonizing steelmaking using sustainable hydrogen; 4) critical materials including Li/Co and rare earth element characterization and extraction. 5) leveraging fundamental science to enable translational research across many sustainable energy technologies, including batteries and decarbonizing steelmaking.

EDUCATION AND CERTIFICATIONS

- Principal Investigator, SLAC-Stanford Battery Center , Batteries, Synchrotron X-ray Characterization, Materials Science, Critical Minerals (2021)
- Postdoc, Stanford University , Materials Science and Engineering (2017)

PATENTS

- Guangxia Feng, Xueli Zheng, Yi Cui. "United States Patent U.S. Provisional Application No. 63/875,190 Hydrotrope-enabled high concentration aqueous electrolytes for reversible and sustainable iron metal anodes"
- Bo Zhang, Xueli Zheng, Oleksandr VOZNYY, Sjoerd HOOGLAND, Jixian XU, Min Liu, Cao-Thang DINH, Edward Sargent. "United States Patent US20170218528A1 Homogeneously dispersed multimetal oxy-hydroxide catalysts"

LINKS

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Publications

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- **Large Scale Synthesis of Manganese Oxide/Reduced Graphene Oxide Composites as Anode Materials for Long Cycle Lithium Ion Batteries** *ACS APPLIED ENERGY MATERIALS*
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