

Understanding Molecular Design for a Stable Lithium Metal Electrolyte Interface



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Friday, December 3, 2021

3:00pm

via Zoom (link to be sent day of seminar)

ABSTRACT: Lithium (Li)-metal batteries are attractive due to their high energy density. However, the drastic reactivity of Li metal limits its battery performance due to the formation of a naturally heterogeneous solid-electrolyte interphase (SEI) on the surface. In this talk, I will discuss understanding of molecular design concepts for electrolyte solvents and artificial SEIs to enable stable cycling of Li metal batteries.

BIO: Zhenan Bao is Department Chair and K.K. Lee Professor of Chemical Engineering, and by courtesy, a Professor of Chemistry and a Professor of Material Science and Engineering at Stanford University. Bao founded the Stanford Wearable Electronics Initiative (eWEAR) in 2016 and serves as the faculty director.

Prior to joining Stanford in 2004, she was a Distinguished Member of Technical Staff in Bell Labs, Lucent Technologies from 1995-2004. She received her Ph.D in Chemistry from the University of Chicago in 1995. She has over 600 refereed publications and over 100 US patents with a Google Scholar H-Index >180.

Bao is a member of the National Academy of Engineering, the American Academy of Arts and Sciences and the National Academy of Inventors. She is a Fellow of MRS, ACS, AAAS, SPIE, ACS PMSE and ACS POLY.