

Development of Safe and High-Performance Next Generation Batteries

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Abstract

Among the various energy storage devices, lithium-ion batteries, with their high energy density, scale flexibility, and low maintenance cost, have been successfully applied in our daily life. However, the intrinsic limitation of safety and energy densities of battery materials make the conventional lithium-ion batteries approaching a bottleneck in the near future. Therefore, Dr. Xia Li's research focuses on the development of next-generation batteries beyond conventional Li-ion batteries to overcome the challenges in practical application. In this talk, Dr. Li will present her research on how to understand and design the key materials in next-generation batteries, such as lithium-sulfur batteries, all-solid-state batteries, etc.