Investigators:
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Project Description:
Lithium-Air batteries have extremely high theoretical energy densities (5,000-12,000 Wh/kg) approaching those of gasoline due to the use of a high capacity lithium anode and oxygen from the air. Existing Lithium-Air technologies have exhibited very low power, round trip efficiency, and cycle life due to severe performance limitations at the air cathode. In this project, we seek to dramatically improve Lithium-Air air cathode performance through the development of a new hierarchical electrode structure to enhance oxygen diffusion from the air and novel high performance bifunctional oxygen reduction and evolution catalysts.

Publications:
To be published.