

# Center for Alkaline Based Energy Solutions (CABES)

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**MISSION:** To advance the scientific understanding of the fundamental factors governing electrocatalysis and electrochemical energy conversion in alkaline media.



[www.cabes.cornell.edu](http://www.cabes.cornell.edu)

## RESEARCH PLAN

Alkaline media enables electrochemical energy conversion technologies that utilize only abundant elements. The **Center for Alkaline Based Energy Solutions (CABES)** is establishing, via three **Fundamental Science Drivers**, (1. What factors govern electrocatalysis in alkaline media? 2. How do we understand and control transport in alkaline media? 3. What makes energy materials durable in alkaline media?) a comprehensive description of the nature, structure, and dynamics of electrocatalysis in alkaline media via an integrated research approach that includes theory and computational methods, synthesis of electrocatalysts and novel membrane materials and the development of novel experimental tools to provide *in situ/operando*, spatiotemporal characterization of systems under operation.

