

Faculty Name:

Daniel Esposito

Faculty Email:

de2300@columbia.edu

Lab:

Solar Fuels Engineering Lab

Project Title:

Ultrathin membrane materials for water electrolysis

Description:

This project will investigate suitable precursors and processing conditions for the deposition of oxide-based membrane materials for use in water electrolyzers. Research will include determining the optimal phosphorous content to incorporate into doped oxide membranes fabricated by wet chemical processing. Experience will be gained in the areas of thin film deposition, electrochemical, chemical, and physical characterization of such films under guidance of the mentor and team. Additionally, the student will gain hands-on experience with electroanalytical methods and materials characterization tools like ellipsometry and Raman spectroscopy.

Location of Research:

On Site

of hrs/week:

35

Department/Program:

Chemical Engineering

Eligibility:

MS

To apply, please contact:

Daniel Esposito

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