

Proposed Advisor: Dr. William A. Maza

Lab Location: NRL (Washington, D.C.)

Research Description: The Spectroscopy and Dynamics Section in the Chemistry Division at the US Naval Research Laboratory is seeking a postdoctoral candidate to develop and apply optical methodologies to characterize and improve systems of power generation and storage. Ongoing efforts include Fourier transform infrared emission spectroscopy and near infrared thermal imaging of solid oxide fuel cells (SOFCs) under electrochemical load to investigate fuel conversion to power, carbon and contaminant (e.g. sulfur, chlorine, etc.) tolerance of novel electrode/electrolyte materials, and the use of novel materials, fuels, reformers, and oxidants to decrease the required operating temperatures of SOFCs into an intermediate temperature regime (i.e. < 600°C). The candidate must have experience in electrochemistry and materials characterization. Knowledge of fuel cells, experience in materials chemistry and vibrational spectroscopy is preferred but not required.

Contact Information:

William A. Maza, Ph.D.
Research Chemist
Spectroscopy and Dynamics Section, Code 6121
Chemistry Division, US Naval Research Laboratory
4555 Overlook Ave, SW
Washington, D.C. 20375

Ph: 202-404-1648

Email: william.a.maza.civ@us.navy.mil