

MIT CHEMICAL ENGINEERING SPECIAL SEMINAR

Controlling the Phase and Stability of 2D MoS₂ and WS₂ for Catalysis and Optoelectronic Properties

Dr. Elisa M. Miller-Link
Chemistry and Nanoscience Center
National Renewable Energy Laboratory, Golden, CO

Friday, January 17, 2020
2:30 PM E17-517

3:30–4:00 PM: Following seminar, Postdocs and Students are welcome to stay and talk with Dr. Miller-Link about her research at NREL.

Bio:

Dr. Elisa Miller-Link studies the surface of semiconductors that are applicable for photovoltaics and catalysis. She is interested in manipulating and controlling surface energetics, charge transfer, and surface reactions by doping, surface passivation, straining, and quantum confinement. Her research focuses on transition-metal dichalcogenides (TMDCs), quantum dots, perovskites, carbon nanotubes, and other nanocrystalline films. Elisa came to NREL in 2013 as an NREL Director's Fellowship recipient for her post-doctoral research. In 2016, she continued her research as a staff scientist.

During her undergraduate education at Boston University, she worked in the lab of Amy S. Mullin, studying the chemical dynamics of high-energy, gas-phase molecules. In 2012, she earned her Doctorate degree in Chemistry and Biochemistry from the University of Colorado Boulder, under the supervision of W. Carl Lineberger. Her doctoral work focused on photoelectron spectroscopy of gas-phase anions and anionic clusters using velocity-map imaging of electrons. She joined NREL in 2013 as an NREL Director's Fellowship recipient, under the mentorship of Jao van de Lagemaat. Her project investigated the energetics of quantum dot, perovskite, and other nanocrystalline films using X-ray photoelectron spectroscopy.

Host: Professor Karthish Manthiram