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Department of Chemistry

Seminar

9:45 a.m. Thursday, December 4, 2014 • 331 Smith Hall



Post-Doctoral Researcher

James McKone, Ph.D.

Department of Chemistry and Chemical Biology
Cornell University

Two-Dimensional Semiconductors for Solar Energy Storage

Currently studying materials for solar energy capture
and large-scale electrochemical energy storage.

Abstract

Solar energy is by far the most abundant renewable resource, but due to the intermittency of sunlight, photovoltaics alone can only offset a small portion of global fossil fuel consumption. To address this challenge, solar energy capture and storage can be integrated by using semiconductor light absorbers to electrochemically drive redox reactions. In this seminar, I will discuss recent work on tungsten diselenide, a promising semiconductor material for solar-driven electrochemical energy storage. I will focus on studies of tungsten diselenide relevant to energy storage through electrolysis of water and hydroiodic acid.

Host: Professor James Johns

Refreshments will be served prior to the seminar.