

S E M I N A R
Monday 04/11/19, 12:00 am
Building 211, seminar room

SPEAKER:

Dr. Matthew Suss

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TOPIC:

**A Tale of 3 Measurements in Electrochemical
Systems**

Abstract:

Electrochemical systems are explored towards applications in energy storage, energy conversion and water desalination, with rapidly expanding capabilities and material sets. Here I will discuss 3 measurements which highlight novel functionalities for electrochemical systems developed by my group, each one take from one of our 2019 publications. These include: 1) demonstration of tuneable ion-size based selective water desalination with capacitive nanoporous carbon electrodes, 2) a grid-decoupled electrochemical systems which produces both net electricity and desalted water simultaneously, 3) a novel flowable electrode which leverages particle vortex formation to enhance its electric conductivity.