

# DREXEL UNIVERSITY

## CHEMICAL AND BIOLOGICAL ENGINEERING

**BIOCHEMICAL ENGINEERING • ELECTROCHEMICAL  
ENGINEERING • ENERGY AND THE ENVIRONMENT •  
MODELING AND SIMULATION • POLYMER SCIENCE  
AND ENGINEERING**

### FACULTY

#### CAMERON F. ABRAMS

*Department Head*

PhD, University of California, Berkeley

Molecular simulations in biophysics and materials;  
Receptors for insulin and growth factors; HIV-1  
envelope structure and function; thermoset polymers

#### NICOLAS J. ALVAREZ

PhD, Carnegie Mellon University

Optical Field Chromatography; Extensional rheology  
of novel polymers; interfacial transport phenomenon;  
Water-based lubrication

#### JASON B. BAXTER

PhD, University of California, Santa Barbara

Solar cells; Semiconductor nanomaterials; Ultrafast  
spectroscopy

#### RICHARD A. CAIRNCROSS

PhD, University of Minnesota

Biodiesel production; Sustainable engineering; Systems for  
environmental monitoring; Ultralight aerodynamic structures

#### MEGAN A. CREIGHTON

PhD, Brown University

Nanotechnology; Surface and interfacial science;  
Complex fluids; Green manufacturing

#### PETER E. DEAK

PhD, University of Notre Dame

Immunoengineering; bioengineering of innate immunity;  
biomaterials for autoimmune diseases and transplantation;  
nanotechnology for drug delivery

#### AARON T. FAFARMAN

PhD, Stanford University

Colloidal nanocrystals; Solution-processed solar cells;  
Electrical and spectroscopic characterization of  
nanomaterials

#### VIBHA KALRA

PhD, Cornell University

Electrospinning of nanofibers; Binder-free electrodes for  
energy devices; In-situ Spectro electrochemistry;  
molecular simulations

#### JOSHUA LEQUIEU

PhD, University of Chicago

Modeling and simulation of soft materials; Polymer  
physics; Biophysics

#### JOSHUA SNYDER

PhD, Johns Hopkins University

Electrocatalysis; Nanoporous nanostructures; Fuel  
cells; Batteries; Water electrolysis

#### MASOUD SOROUSH

PhD, University of Michigan

Systems engineering; Polymer reaction engineering;  
Polymer membranes; Renewable power generation and  
storage systems

#### MAUREEN TANG

PhD, University of California, Berkeley

Batteries; Catalysis; Electrochemical engineering; Energy  
storage and conversion; interfacial transport and reaction

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