

# 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

#### JOSHUA LEQUIEU

PhD, University of Chicago

Modeling and simulation of soft materials; Polymer  
physics; Biophysics

#### MATTHEW A. MCDONALD

PhD, Georgia Institute of Technology

Separations; Crystallization; Machine learning for  
chemical processes; Flow chemistry and continuous  
manufacturing for pharmaceuticals

#### 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

Drexel University is located in downtown Philadelphia with easy access to cultural centers, transportation, and major pharmaceutical, chemical, and petroleum companies.

For more information about applying to one of our programs please visit

[www.drexel.edu/engineering/academics/departments/chemical-biological-engineering/resources/prospective-graduate-students/](http://www.drexel.edu/engineering/academics/departments/chemical-biological-engineering/resources/prospective-graduate-students/)