CHEMICAL AND BIOMOLECULAR ENGINEERING

THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

A Distinctive Academic Experience
- Vast interdisciplinary research opportunities.
- Close working relationships with world-renowned faculty, many of whom are leaders in their field.
- Small, collegial, "family feel" department.
- State-of-the-art facilities.

Financial Advantages
- Competitive financial support;
- Affordable housing (rent/buy): 20% below the national average.
- Cost of living overall is 10% lower than the national average.

Lifestyle
- Diverse, technologically sophisticated city with natural beauty and green open spaces.
- Access to top-rated medical facilities.
- Vibrant neighborhoods, art/music; Ohio State football, pro hockey, soccer; top-rated parks, outdoor recreation, science centers, VR, zoo.

Faculty and Research Areas:

Aravind R. Asthagiri, Carnegie Mellon University
Computational catalysis, modeling surface chemistry.

Bhavik R. Bakshi, Massachusetts Institute of Technology
Sustainable engineering, circular economy, process systems engineering.

Nicholas A. Brunelli, California Institute of Technology
Sustainable catalytic material design.

Jeffrey J. Chalmers, Cornell University
Intrinsic magnetization cell separation and immunomagnetic cell separation, cancer detection, bioengineering, point of care blood testing technology, sickle cell disease.

Stuart L. Cooper, Princeton University
Polymer physics, block polymers, ionomers, polyurethanes, biomaterials.

Liang-Shih Fan, West Virginia University
Particle science and technology, clean energy and environmental systems, electrical capacitance volume tomography, fluidization / multiphase reaction engineering.

Rachel Getman, University of Notre Dame
Computational catalysis, multiscale modeling, computationally-driven materials design. (Starts 8/15/2023)

Lisa Hall, University of Illinois at Urbana-Champaign
Theory and simulation of polymeric materials.

W.S. Winston Ho, University of Illinois at Urbana-Champaign
Molecular and chemical membrane separations; hydrogen purification, CO_2 capture, water desalination and purification, antibiotic recovery, wastewater treatment and metal recovery.

Blaise Kimmel, Northwestern University
Synthetic biology to improve human health and welfare. (Starts 1/1/2024)

Isamu Kusaka, California Institute of Technology
Statistical mechanics, transport phenomena in nano scale systems.

X. Margaret Liu, The Ohio State University
Targeted anti-cancer therapies including monoclonal antibodies, antibody-drug conjugates and gene therapies.

Umit S. Ozkan, Iowa State University
Heterogeneous and electro-catalysis, kinetics, and catalytic materials.

Andre F. Palmer, Johns Hopkins University
Biomaterials for use in transfusion medicine and tissue engineering.

Joel Paulson, Massachusetts Institute of Technology
Smart manufacturing, sustainable process systems engineering, and advanced optimization and control of complex biochemical systems.

Judit Puskas, Hungarian Academy of Sciences
Polymer science, rubber technology, renewable monomer sources, "green" processes, materials for healthcare.

James F. Rathman, University of Oklahoma
Molecular informatics, modeling chemical effects in biological systems.

Eduardo Reátegui, University of Minnesota
Microtechnologies, biomaterials, spectroscopy, immunoengineering, circulating biomarkers.

Joshua Sangoro, University of Leipzig
Energy and sustainability, ionic liquids, deep eutectic solvents, dynamics of liquids and polymers at interfaces, broadband dielectric spectroscopy.

Katelyn E. Swindle-Reilly, Washington University in St. Louis
Polymeric biomaterials, biomimetics and drug delivery systems.

David L. Tomasko, University of Illinois at Urbana-Champaign
Molecular thermodynamics, separations, and STEM retention.

William Xiaoguang Wang, University of Wisconsin-Madison
Design of novel dynamic polymeric materials and systems based on colloidal and interfacial phenomena.

Davita Watkins, University of Memphis
Organic and polymer synthesis, nanomaterials, and theranostics.

Jessica O. Winter, University of Texas at Austin
Nanomanufacturing, nanorobotics, cancer nanotechnology, controlled release for sustainable agriculture.

David Wood, Rensselaer Polytechnic Institute
Biotechnology development through protein engineering.

Barbara E. Wyslouzil, California Institute of Technology
Aerosol and particle technology.

Shang-Tian Yang, Purdue University
Biochemical, metabolic, and tissue engineering; biotechnology.

Shang Zhai, Stanford University
Thermal sciences, materials chemistry, reaction engineering.

Contact: Graduate Program Coordinator • email: cbe-grad@osu.edu • ph: (614) 292-9076 • fax: (614) 292-3769 • web: cbe.osu.edu
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