

From humble beginnings...to a second century of research, education and outreach

Sweeney Hall

42,721 square feet of laboratory, office, meeting and classroom space

Center for Biorenewable Chemicals

18,853 sq. feet of research laboratory and office space



IOWA STATE UNIVERSITY
Department of Chemical and Biological Engineering

A culture of research & innovation

Unique and Advanced Research Facilities

Iowa State CBE facilities are able to host numerous cutting-edge research projects, including:

- Atomic force microscopy
- Biotechnical and protein separations
- Catalyst characterization
- Cell and tissue culture
- Chemical vapor deposition and reactive sputtering
- Gene delivery
- Particle imaging velocimetry
- Particle size analysis and light scattering
- Polymer characterization
- Spectroscopic techniques



IOWA STATE UNIVERSITY

Department of Chemical and Biological Engineering

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Web: www.cbe.iastate.edu

Faculty: www.cbe.iastate.edu/the-department/facultystaff/

Faculty research: www.cbe.iastate.edu/research/faculty-research-pages/



IOWA STATE UNIVERSITY

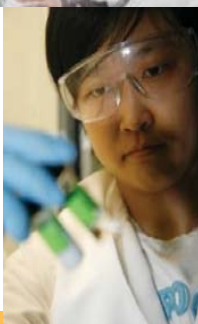
Department of Chemical and Biological Engineering



Seeking answers and launching new ideas for more than a century

Since 1913, Iowa State University's Department of Chemical and Biological Engineering has been home to passionate leaders impacting society with excellence in research. Today these dedicated scientists advance their causes in the fields of sustainability, energy, health science and more.

Department faculty works with an undergraduate and graduate student body of nearly 900 individuals who receive valuable classroom and laboratory experience. Graduates enter careers in biorenewables and bio-based products, food products, the chemical and petroleum industries, biomedical disciplines and much more. More than 6,000 students have graduated from the program.

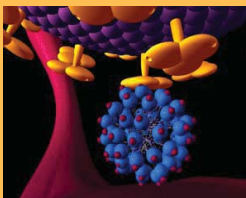


Primary research areas include:

Biorenewables

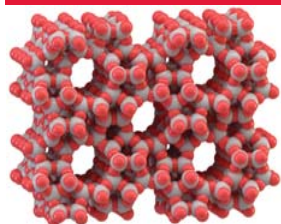


Renewable Energy



Advanced & Nanostructured Materials

Catalysis & Reaction Engineering



Health Care Technology & Biomedical Engineering



Computational Fluid Dynamics

Faculty Researchers and Primary Research Areas



Kaitlin Bratlie
Ph.D., Univ. of California-Berkeley
Biomaterials and drug delivery



Monica H. Lamm
Ph.D., North Carolina State University
Molecular simulation of advanced materials



Nigel Reuel
Ph.D., Massachusetts Institute of Technology
Optical & resonant biosensors, biomaterials, custom tools



Rebecca Cademartiri
Ph.D., University of Potsdam, Germany
Interactions of materials and biology



Wenzhen Li
Ph.D., Dalian Institute of Chemical Physics, Chinese Academy of Sciences
Electrocatalysis, electrochemical energy, biorenewables



Brent Shanks
Ph.D., California Institute of Technology
Heterogeneous catalysis and biorenewables



Eric Cochran
Ph.D., University of Minnesota
Self-assembled polymers



Surya Mallapragada
Ph.D., Purdue University
Self-assembled materials and bio-inspired materials



Jacqueline Shanks
Ph.D., California Institute of Technology
Metabolic engineering and plant biotechnology



Rodney Fox
Ph.D., Kansas State University
Computational fluid dynamics and reaction engineering



Thomas Mansell
Ph.D., Cornell University
Synthetic biology for microbial community engineering



Zengyi Shao
Ph.D., University of Illinois
Biorenewables production by synthetic biology



Kurt Hebert
Ph.D., University of Illinois
Corrosion and electromechanical engineering



Balaji Narasimhan
Ph.D., Purdue University
Biomaterials and nanomedicine



Jean-Phillippe Tessonier
Ph.D., Universite de Strasbourg, France
Heterogeneous catalysis and biorenewables



James Hill
Ph.D., Univ. of Washington
Turbulence and computational fluid dynamics



Matthew Panthani
Ph.D., The University of Texas-Austin
Nanoscience and renewable energy



R. Dennis Vigil
Ph.D., University of Michigan
Transport phenomena and reaction engineering in multiphase systems



Andrew Hillier
Ph.D., Univ. of Minnesota
Interfacial engineering and electrochemistry



Derrick Rollins
Ph.D., The Ohio State University
Statistical process control



Qun Wang
Ph.D., The University of Kansas; Wuhan University, China
Biomaterials, intestinal stem cells, nanotechnology and drug delivery



Laura R. Jarboe
Ph.D., Univ. of California-Los Angeles
Metabolic engineering of microbial biocatalysts



Ian C. Schneider
Ph.D., North Carolina State University
Engineering tumor micromovements



Yue Wu
Ph.D., Harvard University
Functional nanostructured materials for energy harvest, conversion and storage