



TEXAS A&M UNIVERSITY

Artie McFerrin Department of Chemical Engineering

Professors

P. Balbuena | UT Austin | atomic simulations, predictions of thermodynamic & transport properties
M. A. Barteau | Stanford | reactions at solid surfaces, heterogeneous catalysis, and energy processes
M. El-Halwagi | UCLA | process design, sustainability, eco-industrial systems, hydrocarbon processing
Y. Elabd | Johns Hopkins | electrochemical energy, ion-conducting polymer membranes
M. Green | MIT | dispersion, rheology, phase behavior of nanomaterials, thermodynamic properties of fluids & their mixtures, process & product design
M. Holtzapple | PENN | biochemical engineering, food & feed processing, conversion of alcohol fuels
A. Jayaraman | UC Irvine | systems biology, molecular systems biotechnology
H.-K. Jeong | Minnesota | membranes, nanomaterials development
F. Khan | Pondicherry | safety and risk engineering, risk-based integrity assessment and management
C. Kravaris | Cal Tech | nonlinear systems, process control
Y. Kuo | Columbia | nano & microelectronics, semiconductors, thin films
T. Lele | Purdue | Cell mechanics, nuclear mechanics, biomaterials
J. Lutkenhaus | MIT | organic thin films, nanostructures
J. Mittal | UT Austin | biomolecular self-assembly processes, protein phase separation and nanoparticle superlattice design
S. Pistikopoulos | Carnegie Mellon | process synthesis & the environment, operability in process design & optimization
J. Seminario | Southern Illinois | nanotechnology, molecular simulation, computational chemistry
V. Ugaz | Northwestern | microfabricated bioseparation systems

Research Areas

- Biomolecular Engineering
- Biotechnology
- Catalysis and Reaction Engineering
- Complex Fluids, Microfluidics, Soft Matter
- Computational Chemical Engineering
- Environmental Sustainability
- Microelectronics
- Nanotechnology
- Process Control and Systems Engineering
- Process Safety

Graduate Program

Enrollment

211 students (Fall 20)

Financial aid for all doctoral students

Up to \$34,000/yr plus tuition, fees and medical insurance benefits

Institutional ranking

(U.S. News & World Report, 2021)

17th - Public

21st - Overall

For More Information

The Artie McFerrin Department of Chemical Engineering

Jack E. Brown Building

3122 TAMU | College Station, TX 77843-1234

979.845.3361 | che@tamu.edu

engineering.tamu.edu/chemical

Associate Professors

M. Akbulut | UC Santa Barbara | nanotechnology, thermal interface materials, enhanced oil recovery
Z. Gagnon | Notre Dame | electrokinetic transport phenomena, microfluidics, dielectrophoresis, cell migration, biosensing
M. M. F. Hasan | University of Singapore | modeling, simulation and optimization of multiscale systems, CO₂ capture & conversion
G. Reeves | Princeton | Systems biology, cell-cell signaling, live cell imaging, transcriptional networks, engineering principles of biology
S. Vaddiraju | Louisville | polymers, vapor phase techniques, nanostructures, nanowires, in-situ & ex-situ schemes
Q. Wang | Texas A&M University | process safety and fire protection engineering, corrosion and pipeline systems, multiscale systems engineering
B. Wilhite | Notre Dame | reaction engineering, chemical kinetics, transport processes, multilayer catalytics

Assistant Professors

A. Djire | Michigan | hydrogen-based fuels, supercapacitors, materials and technologies for batteries and fuel cells
J. S. Kwon | UCLA | modeling, simulation & control of multiscale processes, crystallization systems
P. Lele | Delaware | microbial cell mechanics, biomolecular engineering, colonization, antibiotic resistance
C. Mashuga | Michigan Tech | flammability, evaluation of fire & explosion hazards
M. Shetty | MIT | chemical transformations at catalytic surfaces, catalytic materials development
Q. Sun | Delaware | microbiome engineering, microbe-environment interactions, protein engineering
P. Tamamis | University of Cyprus | protein structure prediction, de novo protein design, novel frameworks, bionanomaterials
H.-J. Wu | Texas A&M | biosensors, nanotechnology, infectious disease screening, novel materials
X. Zhu | UC Berkeley | bioinformatics, molecular biology, biochemistry, microbiology, and analytical chemistry

Professors of Practice

A. Hilaly | Colorado State | food, nutraceuticals, feed, fuels and renewable chemicals