



Chemical Engineering

ranked graduate program by U.S. & World Report



Chemical Engineering at Caltech is one of the top ranked chemical engineering graduate programs in the nation, where faculty and students work together in continuously pushing the frontiers of the discipline. We cordially invite you to join our endeavor by applying to the Ph.D. program.

Frances H. Arnold: Biocatalysis, protein engineering, enzyme evolution, synthetic biology

John F. Brady: Fluid mechanics and transport processes; complex and multiphase fluids; the mechanics of soft and active matter

Mark E. Davis: Synthesis of zeolites and molecular sieves; synthesis of catalytic materials

Gözde S. Demirer:

Nanotechnology; nano-bio interactions; genetic engineering of plants; plant synthetic biology and bioengineering; food security and sustainability

Richard C. Flagan: Aerosols; atmospheric chemistry and physics; nucleation; health

Kara Fong (Winter 2025): Electrochemical transport and

thermodynamics; molecular simulations; energy storage and water treatment

Konstantinos P. Giapis:

Chemical reaction dynamics at surfaces; plasma processing; nanoscale thermodynamics; nanotechnology

Rustem F. Ismagilov: Global health; microbial communities and biophysics of the gut; diagnostics and antimicrobial susceptibility testing; microfluidics and single cells

Julia A. Kornfield: Polymeric and supramolecular materials; physics and rheology

FACULTY

Karthish Manthiram: Electrocatalysis; decarbonized chemical synthesis; bioelectronics

John H. Seinfeld: Atmospheric chemistry and physics; aerosols; global climate

Mikhail G. Shapiro: Protein engineering, synthetic biology, imaging, remote control, cell therapy, neuroscience

David A. Tirrell: Biocatalysis; *biomaterials; polymer science;* protein engineering; macromolecular chemistry

Zhen-Gang Wang:

Thermodynamics and dynamics of polymers and soft matter; interfacial phenomena; charged systems; gas sorption and diffusion in polymers

CONTACT

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APPLICATION DEADLINE: DEC. 1, 2023 www.cce.caltech.edu www.gradoffice.caltech.edu