CHEMICAL ENGINEERING PHD PROGRAM

The City College of New York

The Grove School of Engineering

Chemical Engineering at The City College of New York has a tradition of high quality research in interdisciplinary areas including Energy & Environment, Materials & Interfaces, Biomolecules & Biotechnology. The research is done in the department and in the affiliated CUNY Benjamin Levich Institute for Physico-Chemical Hydrodynamics, CUNY Energy Institute, and the CCNY Earth Engineering Center and funded by the US Department of Energy, NASA, National Science Foundation, US Department of Education, National Institutes of Health, NY State, and private industries, among others. Our students recently have been hired in industry including at Johnson & Johnson, Corning, ExxonMobil, and have taken faculty positions including at University of Oklahoma, University of North Carolina at Chapel Hill and University of Central Florida.

We seek high-quality, committed students to join our PhD program. Students will work with top notch faculty in world-class facilities and have opportunities for domestic & foreign internships including those with government, industry and European partners.

OUR CHEMICAL ENGINEERING PHD PROGRAM BY THE NUMBERS

~2.4M/YEAR ~200 PUBLICATIONS ~36 PhD STUDENTS

IN RESEARCH FUNDING

IN THE LAST 5 YEARS

50% INTERNATIONAL / 50% DOMESTIC

FACULTY

STAFF MEMBERS

1 DOE Early Career Awardee | 3 National Science Foundation CAREER Awardees | 3 National Academy of Engineering Members | 2 Fulbright Scholars | 2 Humboldt Scholars

MEET OUR CHEMICAL ENGINEERING FACULTY



SANJOY BANERJEE

Director, CUNY Energy Institute / Distinguished Professor Ph.D., University of Waterloo

Research Interests: Energy storage; Multiscale & Interfacial phenomena in multiphase systems

E: banerjee@ccny.cuny.edu W: www1.cuny.edu/sites/energy



ELIZABETH J. BIDDINGER

Associate Professor Ph.D., The Ohio State University

Research Interests: Electrocatalysis; Energy storage; Ionic liquids; Biomass conversion; Green chemistry & Sustainability

E: ebiddinger@ccny.cuny.edu

W: https://ebiddinger.ccny.cuny.edu



MARCO J. CASTALDI

Director, Earth Engineering Center / Director, Earth Sys. Sci. & Env. Eng. / Professor

Ph.D., UC Los Angeles

Research Interests: Combustion & catalysis; Gasification;

Reaction engineering; Waste to energy

E: mcastaldi@ccny.cuny.edu

W: www.cclabs.org or www.ccnyeec.org



Assistant Professor

Ph.D., Stevens Institute of Technology

Research Interests: Bio-inspired functional materials; Energy harvesting; Sensors; Actuators; Energy conversion & Storage

E: xchen@gc.cuny.edu W: www.xchenlab.com



ALEXANDER COUZIS

Herbert G. Kayser Professor Ph.D., University of Michigan

Research Interests: Nanoscience & engineering; Surface engineering; Interfacial phenomena; Templated synthesis of materials

E: couzis@ccny.cuny.edu

W: https://acouzis.ccny.cuny.edu



M. LANE GILCHRIST

Associate Professor

Ph.D., UC Davis

Research Interests: Biointerface engineering; Biomembrane microenvironments

& Membrane proteins; Fluorescence spectroscopy & 3D imaging

E: gilchrist@ccny.cuny.edu

W: https://mgilchrist.ccny.cuny.edu



Department Chair & Herbert G. Kayser Professor Ph.D., Technical University of Berlin

Research Interests: Janus & Patchy particle assembly & Interfacial

behavior; Synthesis & Application of nanomaterials

E: kretzschmar@ccny.cuny.edu

W: https://ikretzschmar.ccny.cuny.edu



CHARLES MALDARELLI

Ph.D., Columbia University

Research Interests: Hydrodynamics of Colloids at a Fluid Interface; Hydrodynamics of active colloids; Microfluidics; Particle stabilized foams; Oil spill remediation & Carbon dioxide sequestration

E: cmaldarelli@ccny.cuny.edu

W: levich.ccny.cuny.edu/people/charles-maldarelli-lab



ROBERT J. MESSINGER

Assistant Professor

Ph.D., UC Santa Barbara

Research Interests: Energy storage, Electrochemical materials, Molecular engineering, Nuclear magnetic resonance spectroscopy, Ion & Mass transport

E: rmessinger@ccny.cuny.edu W: https://rmessinger.ccny.cuny.edu



JEFFREY F. MORRIS

Director, Levich Institute / Professor

Ph.D., California Institute of Technology

Research Interests: Properties & Dynamics of flowing mixtures; Nonequilibrium microstructure & Rheology in sheared suspensions dynamics of flowing mixtures

E: morris@ccny.cuny.edu

W: www-levich.engr.ccny.cuny.edu/~jmorris



DAVID S. RUMSCHITZKI

Professor

Ph.D., UC Berkeley

Research Interests: Reaction engineering; Transport & Reaction aspects of

artery disease; Hydrodynamics of two phase flow in tubes

E: drumschitzki@ccny.cuny.edu

W: www.ccny.cuny.edu/profiles/david-rumschitzki



CAROL STEINER

Professor

Ph.D., University of Pennsylvania

Research Interests: Novel hydrogels; Soft biomaterials

E: csteiner@ccny.cuny.edu

W: www.ccny.cuny.edu/profiles/carol-steiner



RAYMOND S. TU

Associate Professor

Ph.D., UC Santa Barbara

Research Interests: Peptide design & Synthesis; Self-assembly; Biosensing;

Drug delivery; Bio-based materials

E: tu@ccny.cuny.edu

W: https://rtu.ccny.cuny.edu

ROSEMARIE WESSON

Associate Dean for Research / Professor

Ph.D., University of Michigan

Research Interests: Numerical analyses of polymer crystallization kinetics; Structure property relationships of crystalline materials, Polymeric flows

E: rwesson@ccny.cuny.edu

W: www.ccny.cuny.edu/profiles/rosemarie-wesson

