Inorganic Chemistry

Department of Chemistry
University of Illinois at Urbana-Champaign

For more information, visit
chemistry.illinois.edu

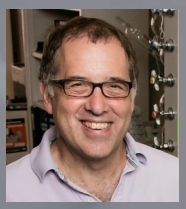
What is Inorganic Chemistry?

The University of Illinois is one of the premier institutions of inorganic chemical research, as shown by its ranking as one of the top 10 graduate inorganic programs by US News and World Report. The faculty members not only are leaders in the field, but are also outstanding mentors of graduate students working toward their PhD degrees. Our students have gone on to extremely successful careers in both academia and industry. The program covers all areas of modern inorganic chemistry from organometallic chemistry, kinetics/mechanism, and catalysis to the frontiers of materials chemistry, bioinorganic chemistry, and advanced physical characterization.

Alison R. Fout

Synthesis and characterization of transition metal complexes and their use as catalysts for biological, environmental and energy concerns

chemistry.illinois.edu/fout



Andrew A. Gewirth

Structure and reactivity of surfaces, materials, and interfaces relevant to catalysis, electrodes, and biology

chemistry.illinois.edu/agewirth

Gregory S. Girolami

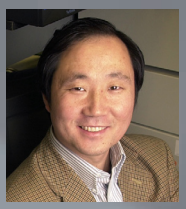
Synthesis of transition metal and f-metal complexes and their use in catalysis; as precursors for the chemical vapor deposition of micro- and nanoelectronic devices; in energy applications; and for the reprocessing of nuclear fuel

chemistry.illinois.edu/ggirolam

Hee-Sun Han

Design and develop new precursors for high-quality inorganic nanoparticle synthesis; use of inorganic nanoparticles for single molecule imaging and cellular imaging; assembly of nanoparticles

chemistry.illinois.edu/hshan



Yi Lu

Biosynthetic inorganic chemistry in environmentally benign catalysis; renewable energy and pharmaceuticals; metallo-DNAzymes in environmental monitoring, medical diagnostics, and targeted drug delivery

chemistry.illinois.edu/yi-lu

Liviu M. Mirica

Synthetic and mechanistic inorganic and organometallic chemistry applied to energy catalysis and oxidative organic transformations; study of the role of transition metal ions in neurodegenerative diseases

chemistry.illinois.edu/mirica

also see reverse side

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Inorganic Chemistry

Other faculty with interests in Inorganic Chemistry

Scott E. Denmark
Transition-metal and main-group chemistry

Eric Oldfield
Metalloproteins as drug targets

Thomas B. Rauchfuss (emeritus faculty)
Synthesis and mechanistic studies of catalysis

Stephen G. Sligar (emeritus faculty)
Nanobiotechnology; drug discovery

Kenneth S. Suslick (emeritus faculty)
Sonochemistry; sensor arrays

Wilfred A. van der Donk
Metalloenzyme catalysis

Renske van der Veen
Ultrafast characterization of metal-organic nanomaterials

M. Christina White
Transition-metal mediated reactions for organic synthesis

Catherine J. Murphy

Syntheis of inorganic nanoparticles of controlled shape and size; use of inorganic nanoparticles for optical sensing and imaging with biological and environmental applications

chemistry.illinois.edu/murphycj

Ralph G. Nuzzo

The chemistry of materials; nano and microscale fabrication; soft materials; integrated devices; self-organizing structures

chemistry.illinois.edu/r-nuzzo

Lisa Olshansky

Design, synthesis, and examination of switchable metal complexes for bioinspired solutions in solar energy conversion and multi-electron, multi-proton catalysis

chemistry.illinois.edu/lolshans

Josh Vura-Weis

Femtosecond X-ray spectroscopy of catalytic reaction intermediates

chemistry.illinois.edu/vuraweis

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