



Department of Chemistry
College of Natural Sciences
and Mathematics

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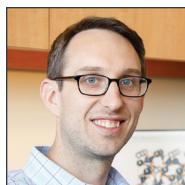
Steven Baldelli, Professor
Physical Chemistry, sbaldelli@uh.edu

Nonlinear optics, vibrational spectroscopy, surface chemistry, electrochemistry, microscopy, batteries/fuel cell electrodes, and polymer surfaces.



Joshua Bocarsly, Robert A. Welch Foundation Assistant Professor
Inorganic/Physical Chemistry, jdbocarsly@uh.edu

Discovering and controlling advanced inorganic materials for applications in batteries, magnetism, quantum materials, and energy conversion; digital data management to streamline experimental materials chemistry.



Jakoah Brgoch, McElrath Professor
Inorganic Chemistry, jbrgoch@central.uh.edu

Designing energy efficient materials through synthesis, characterization, and computation; applications of functional intermetallics and complex oxides.



Maurice Brookhart, Professor
Organic/Inorganic Chemistry, mbrookha@central.uh.edu

Synthetic and mechanistic organometallic chemistry, applications of homogeneous catalysis in organic synthesis, olefin polymerization and oligomerization, carbon-hydrogen bond activation.



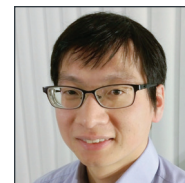
Chengzhi Cai, Professor
Organic Chemistry, cai@uh.edu

Developing molecular probes and biointerfaces to study proteome-wide protein-protein, protein-biomaterial, and protein-drug interactions in/on live cells through organic synthesis, surface functionalization, and mass spectrometry analysis.



Brad Carrow, Associate Professor
Organic/Inorganic Chemistry, bcarrow@uh.edu

Development of transition metal catalysis broadly applicable for organic transformations; addressing challenges in sustainable materials chemistry.



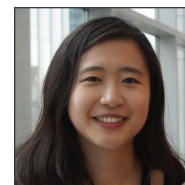
Tai-Yen Chen, Associate Professor
Physical Chemistry, tchen37@central.uh.edu

Investigation of metal homeostasis in healthy and diseased neurons using single molecule techniques to understand causes of neurodegenerative diseases.



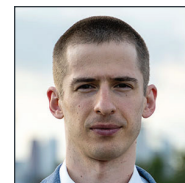
Naihao Chiang, Assistant Professor
Physical Chemistry, nchiang@central.uh.edu

Fundamental light-matter interactions: manipulating light to induce new chemical and physical phenomena and leveraging these to pursue interdisciplinary projects linking physics, chemistry, materials science, and biomedical engineering.



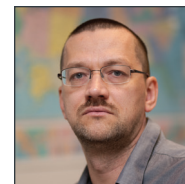
Yeongsu Cho, Assistant Professor
Physical/Analytical Chemistry, ycho22@central.uh.edu

Computational and theoretical materials science; novel materials discovery for optoelectronic applications; development of cost-efficient excited state calculation methods.



Robert J. Comito, Associate Professor
Organic Chemistry, rjcomito@central.uh.edu

Organic synthesis, polymer chemistry, organometallic chemistry. Development of new radical and metal-catalyzed methods for complex molecule and polymer synthesis.



Olafs Daugulis, Welch Chair in Chemistry
Organic/Inorganic Chemistry, olafs@uh.edu

Synthetic organic and organometallic chemistry focusing on C-H functionalization; catalysis by Cu, Pd, Co, Ni complexes; late transition metal-catalyzed polymerization of olefins.



Loi H. Do, Mary B. Bean Professor
Organic/Inorganic Chemistry, loido@uh.edu

Synthetic organometallic catalysis and bioinorganic chemistry. Development and studies of transition metal complexes for applications in medicine, polymers, and fuel/biofuel synthesis.



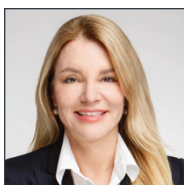
Arnold M. Guloy, Moores Professor
Inorganic Chemistry, aguloy@uh.edu

Solid state chemistry; synthesis of novel inorganic solids and high temperature superconductivity.



P. Shiv Halasyamani, Cullen Distinguished Chair
Inorganic/Physical Chemistry, psh@uh.edu

Synthesis, characterization, and structure-property relationships in new functional inorganic solid-state materials; non-linear optical materials; crystal growth.



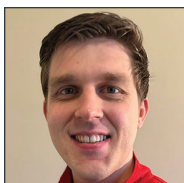
Eva Harth, Professor
Organic/Polymer/Inorganic Chemistry, harth@uh.edu

Development of polymeric materials by implementing organometallic and radical polymerization to advance plastics and drug delivery methodologies.



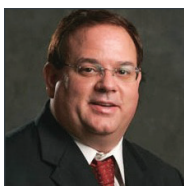
Allan J. Jacobson, Welch Chair of Science
Inorganic Chemistry, ajacob@uh.edu

Synthesis and structural characterization of mixed metal oxides; ionic and electrical conductivity in solids; synthesis of composite structures.



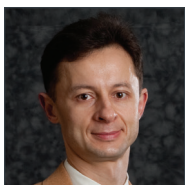
Trevor Latendresse, Assistant Professor
Inorganic Chemistry, tlatendr@central.uh.edu

Synthetic inorganic chemistry for exploring new modes of reactivity, structure, and bonding in f-element and transition metal molecular species; Interested in odd oxidation states, multi-e-/multi-H+ chemical transformations, and metal-ligand multiple bonds.



T. Randall Lee, Cullen Distinguished Univ. Chair & Assoc. Dean for Research
Organic/Inorganic/Physical Chemistry, trlee@uh.edu

Chemical synthesis and self-assembly to prepare nanoscale materials (e.g., organic thin films, polymers, and nanoparticles) for use in various technological and medicinal applications.



Vassiliy Lubchenko, Professor
Physical Chemistry, vas@uh.edu

Theoretical study of strongly non-equilibrium and disordered systems with applications to materials science, molecular electronics, and biophysics.



Jeremy May, Professor and Assoc. Dean for Graduate Affairs
Organic Chemistry, jmay@uh.edu

Natural product total synthesis, development of transition metal-based synthetic methods using carbenoid and ylide-like intermediates, mechanistic elucidation, medicinal chemistry, biomolecular recognition, and drug target identification.



Ognjen Miljanic, Moores Professor
Organic/Inorganic Chemistry, miljanic@uh.edu

Supramolecular chemistry, self-sorting processes, metal-organic and covalent-organic frameworks, fluorescent sensors.



Reggie Mills, Drs. Yao and Song Endowed Assistant Professor
Organic/Polymer Chemistry, Rmills2@central.uh.edu

First-row transition metal catalysis for organic synthesis; At-metal study of organometallics, mechanism, and catalysts for cross-coupling, C-H activation, and aromaticity.



Thomas Teets, Geanangel Professor
Organic/Inorganic Chemistry, tteets@uh.edu

Synthetic inorganic and organometallic chemistry; molecular photochemistry and photophysics with applications in photoluminescence, optoelectronics, photoredox catalysis, luminescent sensing, and nonlinear optics.



Yuhong Wang, Professor
Physical/Biochemistry, ywang60@uh.edu

Ribosome translation fidelity, antibiotic inhibition and resistance, and the evolutionary origins of the proto-ribosome. Force-modulated single-molecule FRET methods. AI-driven evolutionary analysis and machine-learning-based drug discovery.



Judy Wu, Thomas A. Albright Professor
Organic/Physical Chemistry, jiwu@uh.edu

Computational organic chemistry. Ab initio and DFT studies of organic reactions, functional π -conjugated systems, and light-induced proton and electron transfer reactions.



Shoujun Xu, Professor
Physical Chemistry, sxu7@uh.edu

Developing laser-detected magnetic resonance imaging. Applications of novel and conventional magnetic resonance imaging techniques in biomedicine and materials science.



Ding-Shyue (Jerry) Yang, Professor
Physical Chemistry, yang@uh.edu

Ultrafast electron diffraction and surface imaging, non-equilibrium electronic and structural dynamics, photoinduced phase transitions of condensed-matter and nanostructured materials, and at interfaces.



Melissa Zastrow, Associate Professor
Bioinorganic Chemistry/Chemical Biology, mzastrow@uh.edu

Using chemical and biological approaches to investigate the roles of essential metals in the gut microbiota.



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