# TEPARTMENT OF CHEMISTRY

# Interdisciplinary Research. Award-Winning Faculty. Exceptional Resources. Ideal Location.

Our mission is to conduct preeminent research, provide forward-thinking instruction, and perform service activities that will positively impact our campus, society, and the world.

### FAST FACTS

Ranked first on the list of best value colleges for women in STEM by Forbes magazine

Named the most sustainable university in the world by the GreenMetric ranking

> Over 35,000 enrolled undergraduate and graduate/professional students

97 graduate programs, more than half are interdisciplinary

More than 20,000 bicycles on campus each day and 55 miles of bike paths within the city of Davis

# **Chemistry Graduate Program**

Our program has a strong focus on interdisciplinary research and teaching, with diverse classes, advanced facilities, state-of-the-art instrumentation, and collaborative research opportunities. Our faculty and students receive prestigious research awards and fellowships, as well as awards for teaching and mentorship. Our program has over 200 graduate students engaging in research across six areas of study: analytical, chemical biology, inorganic, organic, physical, and chemical physics.

# A Unique Ph.D. Experience

We have the resources to help you become an independent scientist and launch a successful career. We encourage and support graduate research that transcends traditional academic boundaries by bringing together faculty from departments across campus, including the School of Medicine, College of Engineering, and College of Biological Sciences. All applicants are considered for merit-based fellowships upon admission. As an enrolled Ph.D. student, you will also have the opportunity to apply for UC Davis NIH research training grant programs in Chemical Biology, Molecular and Cellular Biology, Pharmacology and Environmental Health Sciences, among others.

Go to <u>https://chemistry.ucdavis.edu/faculty-research</u> to learn more about our research.





Our campus is located in the city of Davis, a vibrant college town of about 68,000 in Northern California. The state capital is only 20 minutes away, while world-class destinations such as San Francisco, Lake Tahoe and the Napa Valley are within a two-hour drive.



"A great thing about our program is the breadth of our research. You can explore many different areas of chemistry."

-DEAN TANTILLO, PROFESSOR



The minerals Caseyite and Navrotskyite are named after **Prof. Bill Casey** and **Prof. Alex Navrotsky**, respectively.

The Davis-Beirut reaction for forming 2*H*-indazoles was discovered by **Prof. Mark Kurth** and Prof. Mahkluf Haddadin (American Univ. Beirut), and was named after the home cities of their institutions.

Davis-Beirut Reaction

R1 KOH





### **Resources within Reach**

The department is home to advanced facilities including NMR, X-ray crystallography, and imaging. We are major users of a shared highperformance computing cluster on campus. Our faculty direct unique centers such as the Campus Mass Spectrometry facility, the West Coast Metabolomics Center and the CalEPR center. We are centrally located on campus,

### **Cutting-Edge Research**

Our department engages in a rich spectrum of ground-breaking research within chemistry and across disciplines. Our faculty are recognized as AAAS, ACS, and RSC Fellows and are recipients of prestigious awards both within and outside the university. The department stays engaged with the broader scientific community, with faculty serving on journal editorial and advisory boards and as officers in societies such as ACS. Innovations within the department spawn entrepreneurial endeavors including startup companies and industry partnerships. Aggie Square, an emerging innovation center in nearby Sacramento, encourages industry collaborations.



**State-of-the-art:** Our department is home to the CalEPR center (left), founded by **Prof. David Britt** (right). The center has six continuous-wave and pulse EPR instruments ranging in frequency from 9 to 130 GHz. CalEPR is the largest center of its kind on the West coast.

providing easy access to numerous additional resources at UC Davis. The city is geographically situated with world-class technologies within reach, including the Advanced Light Source at Lawrence Berkeley National Lab and the UC Davis Medical School in Sacramento.



"UC Davis has an amazing collaborative campus that allows you to work with experts across various fields of STEM! The students and professors are working together to produce research that drives the scientific community forward."

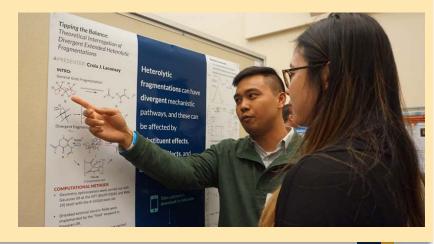
-LEANNA MONTELEONE, GRADUATE STUDENT

## A Framework for Diversity

At UC Davis, we value the diversity of backgrounds, viewpoints, perspectives, and experiences among our students, as this diversity strengthens and enriches our research, scholarship, and teaching. A diverse graduate student population enhances the academic experiences for the whole campus.

The Chemistry department is committed to cultivating a multicultural academic environment that supports the success of all graduate students. We actively recruit students with a variety of personal experiences, values, and The cross-pollination of ideas and the amount of collaboration in our Department constantly impresses and inspires me."

-CROIX LACONSAY, GRADUATE STUDENT



worldviews. We aim to provide additional financial support and mentoring to underrepresented minorities and students with disabilities.

Go to https://diversity.ucdavis.edu/ to learn more about our campus efforts in diversity, equity, and inclusion.



### **Engaging with Our Community**

In the Department of Chemistry, you have the chance to share your science with the community. Our faculty, students, and staff put on over 25 sciencethemed outreach events per year, including the Picnic Day Chemistry Show, one of the most anticipated events on campus attended by 1600 people! We travel to schools to do hands-on chemistry demonstrations with K-12 students, host a talk/film series called "SCInema at UC Davis," as well as run community science talks at the Davis Science Cafe.

Go to https://chemistry.ucdavis.edu/about/outreach to learn more about our outreach efforts.





### **Apply Online**

The deadline to apply for enrollment in the Ph.D. program is in December or early January for the following academic year. Your application will require the following materials:

**Transcripts:** You may upload PDF versions of your transcripts and academic records directly to our application system.

**Two Personal Essays**: An opportunity to highlight your undergraduate research experience and demonstrate your maturity and motivation for pursuing graduate study.

**Three Letters of Recommendation:** Your letters should be from science-related faculty or employers who are able to comment on your research and academic abilities.

**Prior Experience:** Identify prior research advisers and rationale for any pending or future coursework.

**Noteworthy Academic Achievements:** List any published research, publications in preparation, or publications you participated in.

**Test Scores:** TOEFL scores are required for international students who are not exempt. We will NOT be requiring the GRE general or subject test for the 2020-2021 admissions.

Requirements are subject to change. For up-to-date information, please visit us at <u>https://chemistry.ucdavis.edu/graduate/prospective-students/phd-chemistry</u>.

Image credit: background images by Pete Scully

### MANY OF OUR FACULTY

belong to more than one graduate program, giving you the freedom to explore your interests across disciplines, including:

- Agricultural and Environmental Chemistry
- Biochemistry, Molecular, Cellular and Developmental Biology
- Biophysics
- Biomedical Engineering
- Chemical Engineering and Materials Science
- Pharmacology and Toxicology

### **OUR GRADUATES ARE**

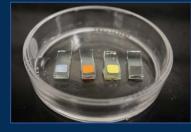
**EMPLOYED** at all levels of academia, from small liberal arts colleges to top research institutions, as well as in industry:

- AMPAC Fine Chemicals
- Chevron
- Genentech
- Intel
- Lawrence Livermore National Laboratory



"The best reason to come to Davis is the people. Grad school is difficult for everybody, but having a group to hang out with, study with, and grow with makes the journey better." —LILIA BALDAUF, GRADUATE STUDENT









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