## WEEKLY BULLETIN DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY EVANSTON, ILLINOIS August 23, 2021

Contents <u>Return to Research Guidelines</u> <u>New Arrivals</u> <u>BIP</u> <u>Upcoming Events and News</u> <u>Job Openings & Recruiting</u>

For a full schedule, including Center events, please see the Department Calendar.

# Return to Research Guidelines

**Return to Research Policy** 

COVID-19: Return to Campus Guidelines

# **New Arrivals**

No new arrivals this week.

BIP

BIP will be held virtually on Fridays, **10 am to 11 am.** The Zoom link will always be sent out **the Wednesday before the respective seminar to the BIP listserv!** Interested in giving a BIP talk or signing up to be on the BIP listserv? Email the new BIP Meisters, Zoha Syed or Megan Kaster.

# Upcoming Events and News

# Call for Abstracts: Webinar Series for Early Career Chemists

JAWSChem is a virtual seminar series for chemists in the early stages of their career (i.e. undergraduates, graduate students, and postdocs, as well as people in industry and government/national labs). The goal of this seminar series is to fill the void of missed conferences and provide a platform for junior researchers to share their work with the worldwide chemistry community.

There is currently a call I for abstracts from the chemistry community, and they welcome submissions from all over the world. Additional information about times and talk length can be found on our <u>abstract</u> form and <u>website</u>. You can follow them on Twitter too (<u>@JAWSChem</u>).

# Job Openings & Recruiting

# Assistant Professor (Inorganic Chem) – Rice University



Rice University is searching for an Assistant Professor in the area of Inorganic Chemistry. Rice is interested in candidates with expertise in all areas of Inorganic Chemistry, including inorganic photochemistry and spectroscopy, novel inorganic materials, bioinorganic chemistry, catalysis, etc. The application link and instructions can be found by following this link: https://chemistry.rice.edu/faculty-search.

# Postdoctoral position (nanomedicine) – University of Southern California

## **Postdoctoral Fellows**

The Chung lab welcomes applications from exceptional postdoctoral candidates interested in pursuing translational research in the following areas:

- Nanomedicine
- Biomaterials
- Drug Delivery

Applicants should have a PhD in Biomedical Engineering, Chemistry, Chemical Engineering, or related areas. The position requires a highly motivated and independent researcher with drug delivery background and cell culture know-how, animal experience, and the ability to work collaboratively with other team members and manage interactions with faculty and a broad range of senior and junior research collaborators. Candidates with relevant experience should



**Santa Clara University**, a highly ranked Catholic Jesuit institution with an ACS-approved undergraduate program located in the Silicon Valley, is seeking a **tenure-track assistant professor** commencing fall 2022. The successful candidate is expected to establish a vigorous and productive undergraduate research program in the broadly defined area of **inorganic chemistry**, pursue external funding for research objectives, and excel in teaching inorganic and general chemistry, and special topics courses in their area of expertise.

A Ph.D. and postdoctoral experience in inorganic chemistry or closely allied fields are required, along with a strong commitment to teaching and undergraduate research. College teaching experience of a diverse student body is desirable. For complete job description and instructions for submission of materials, visit: **bit.ly/3zrzGUB** 

Completed applications must be received by **October 8, 2021**.

Santa Clara University is an Equal Opportunity/Affirmative Action employer. The University is committed to excellence through diversity and inclusion, and, in this spirit, particularly welcomes applications from women, persons of color, and members of historically underrepresented groups.

Department of Chemistry and Biochemistry 500 El Camino Real, Santa Clara, California 95053-0270 408-554-4799 FAX 408-554-7811 https://www.scu.edu/cas/chemistry/



# PPG PhD Recruiting at Northwestern

# About PPG

We protect and beautify the world™

At PPG, we work every day to develop and deliver the paints, coatings and other high performance materials that our customers have trusted for more than 130 years. Headquartered in Pittsburgh, Pennsylvania, we operate and innovate in more than 70 countries. Through cutting-edge research, we serve customers in transportation, energy, infrastructure, consumer products and food/beverage markets. To learn more, visit www.ppg.com and follow @PPG on Twitter.

# Why join us?

With PPG, you will find meaning in your work every day, and engage in exciting opportunities that will shape you, personally and professionally.

- Your personal strengths will empower you to succeed and make an impact from day one.
- You will be inspired to learn and grow, and to get the support you need to identify and achieve your boldest career aspirations.
- Your passion to excel will be fueled by your connection to world-class partners, industry experts, the best and brightest innovators, and future forward technologies.
- Your contributions will not only meet the challenges of our global customers, but help them propel their industries forward.
- You will be welcomed into a diverse culture where everyone's ideas and contributions are valued and encouraged.

Just like you, we are driven to make a difference in our world.

# **PPG R&D Career Opportunities**

Our R&D team at the Coatings Innovation Center in Allison Park, PA is made up of a diverse group of researchers passionate about creating new technology. Our recruiting team is looking for researchers with a variety of backgrounds (see below) in material sciences, chemistry, physics and engineering.

- Organic synthesis
- Polymer Science and Physics
- Analytical Sciences
- Inorganic Chemistry
- Electrochemistry
- Biochemistry
- Catalysis
- Computational/Data Science
- Material Science
- Electrical, Mechanical & Chemical Engineering
- Optical Physics
- Corrosion Science
- Fracture Mechanics
- Automation/Robotics

## **PPG 2021 Recruiting Timetable**

August 25	PPG Info Session – LR3 @ 6 PM Come hungry! Sandwiches provided ©
August 26	PPG On-Campus Interviews
Sep 13 – Oct 7	Onsite Interviews





Tenure-Track Faculty Position College of Natural and Social Sciences

#### Position:

Department of Chemistry and Biochemistry

Assistant Professor of Organic Chemistry

#### **Starting Date:**

August, 2022

#### **Minimum Qualifications:**

- 1) An earned doctorate (Ph.D. or equivalent) in Organic Chemistry from an accredited institution of higher education (or equivalent) is required at the time of application.
- 2) Evidence of effective teaching.
- Demonstrated ability and commitment to working effectively with faculty, staff, and students in a multicultural/multiethnic urban campus environment with a substantial population of first-generation students.
- 4) Demonstrated evidence of scholarship and productivity.

#### **Preferred Qualifications:**

- 1) Research experience in synthetic organic chemistry and spectroscopic analysis.
- 2) Post-doctoral research experience.

#### **Duties:**

The primary professional responsibilities of instructional faculty members are: teaching, research, scholarship and/or creative activity, and service to the University, profession and to the community. These responsibilities generally include: advising students, participation in campus and system-wide committees, maintaining office hours, working collaboratively and productively with colleagues, and participation in traditional academic functions.

The successful candidate will teach undergraduate and graduate level courses in their area of expertise, including courses in the division of Organic Chemistry; participate in curriculum development, which includes modification and improvement of existing courses and development of new courses at both the undergraduate and graduate levels; establish an externally funded research program that involves mentoring Cal State LA students at both the undergraduate and Master's level; publish research in recognized scholarly journals; advise students on academic progress toward completion of degree and career options.

The successful candidate will be committed to the academic success of all of our students and to an environment that acknowledges, encourages, and celebrates diversity and differences. To this end, the successful candidate will work effectively, respectfully, and collaboratively in diverse, multicultural, and inclusive settings. In addition, the successful candidate will be ready to join faculty, staff, students, and administrators in our University's shared commitment to the principles of engagement, service, and the public good.

#### Salary:

Initial salary is commensurate with qualifications and experience.

#### The University:

California State University, Los Angeles (Cal State LA) is one of 23 campuses within the California State University system. The University is the premier comprehensive public university in the heart of Los Angeles. Cal State LA is ranked number one in the U.S. for the upward mobility of its students, and is dedicated to engagement, service, and the public good. We offer nationally recognized programs in science, the arts, business, criminal justice, engineering,

nursing, education, ethnic studies, and the humanities. Our faculty have a strong commitment to scholarship, research, creative pursuits, community engagement, and service.

Our 240,000 alumni reflect the City and County's dynamic mix of populations. The University has one of the most diverse student populations of any college or university in the nation. As a federally recognized Hispanic-Serving Institution, and Asian-American, Native American, and Pacific Islander-Serving Institution, Cal State LA recognizes the transformative power of education and embraces its duty to identify and serve the needs of all of its students. The University is committed to creating a community in which a diverse population can live, work and learn in an atmosphere of civility and respect for the rights and sensibilities of each individual.

#### The Department:

The Department of Chemistry and Biochemistry is dedicated to providing a high-quality education in the disciplines of chemistry and biochemistry in an environment that encourages hands-on research participation by students. The Department offers programs leading to a Bachelor of Science degrees (B.S.) in Chemistry and in Biochemistry and a Master of Science (M.S.) degree with thesis, biochemistry, and comprehensive examination options. A major strength of the department is the commitment of the full-time faculty to research involving undergraduate and graduate students. This research commitment is an integral part of our teaching. In a recent listing, the National Science Foundation ranked Cal State LA as the top baccalaureate institution of origin of Hispanic science PhD recipients among all predominantly undergraduate and graduate degree colleges and universities in the US. The Department of Chemistry and Biochemistry at Cal State LA is the top contributor to this distinction and is well-recognized for its strong research program. Many program graduates go on to earn PhDs.

#### **Required Documentation:**

#### Please submit the following to the Search Committee Chair at the email address below:

1) A cover letter specifically addressing minimum and preferred qualifications.

2) A narrative statement describing your commitment to working effectively with faculty, staff, and students in a multicultural/multiethnic urban campus environment with a substantial population of students who are among the first-generation of their family to attend a college or university.

3) A curriculum vitae.

4) A list of three professional references.

5) A University Application for Employment Form (<u>www.calstatela.edu/academic/position</u>).

6) A narrative that describes your proposed research, how you would engage undergraduate and graduate students in your research program, and the potential resources needed to conduct your research at Cal State LA.7) A statement of teaching philosophy and classroom approach (2-page maximum).

#### Finalists will be required to submit:

Official transcripts.

Employment is contingent upon proof of eligibility to work in the United States.

#### Application:

Review of applications for full consideration will begin October 15, 2021.

Please email all application materials in a single PDF to: <u>ochemsearch21@calstatela.edu</u>. Please type "Organic Chemistry Search 21" in the subject line.

Please address all questions to the search committee chair Dr. Linda Tunstad at: <u>ochemsearch21@calstatela.edu</u> or 323-343-2300.

Note: The person holding this position is considered a "mandated reporter" under the California Child Abuse and Neglect Reporting Act and is required to comply with the requirements set forth in CSU Executive Order 1083 as a condition of employment.

A background check (including a criminal records check) must be completed satisfactorily before any candidate can be offered a position with the CSU. Failure to satisfactorily complete the background check may affect the application status of applicants or continued employment of current CSU employees who apply for the position.

In addition to meeting fully its obligations under federal and state law, Cal State LA is committed to creating a community in which a diverse population can live, work and learn in an atmosphere of tolerance, civility and respect for the rights and sensibilities of each individual. To that end, all qualified individuals will receive equal consideration without regard to economic status, race, ethnicity, color, religion, marital status, pregnancy, national origin or cultural background, political views, sex, sexual orientation, gender identification, age, disability, disabled veteran or Vietnam era veteran status.

#### AN EQUAL OPPORTUNITY/TITLE IX EMPLOYER

Upon request, reasonable accommodation will be provided to individuals with protected disabilities to (a) complete the employment process and (b) perform essential job functions when this does not cause undue hardship.

email Professor Chung (eunchung@usc.edu). Please include the following information with your email application: Cover letter, CV, references, and research interests.

Apply <u>here</u>.

# **Assistant Professor – Organic Chemistry**



Haverford College Department of Chemistry has initiated a search for a tenure-track Assistant Professor in the field of Organic Chemistry with a biological focus (broadly defined) with an appointment beginning Fall 2022. Details can be found here: <u>https://apply.interfolio.com/90937</u>

We seek applications from candidates committed to the inclusive training and instruction of diverse student populations and those who will enrich the diversity within our community..

The job requires someone who has the potential to thrive in teaching, research, and departmental DEI efforts. The support structures (facilities, financial, teaching load, sabbatical policies, etc) here at Haverford are excellent, and our faculty thrive as teacher-scholars. Our students are truly a joy to work with, and Chemistry is one of the most popular majors on campus. It is a really great community!

# Carbon Neutral Program Manager in Los Altos, CA



# The company

At Toyota Research Institute (TRI), we're working to build a future where everyone has the freedom to move, engage, and explore. Join us in our mission to improve the quality of human life through advances in artificial intelligence, automated driving, robotics, and materials science. We're dedicated to building a world of "mobility for all" where everyone, regardless of age or ability, can live in harmony with technology to enjoy a better life.

# The challenge

Achieving net-zero carbon emissions is one of the most important challenges facing our world. Vehicle electrification is an important pathway toward decarbonizing the transportation sector, but this strategy relies on creating a carbon-free electrical grid. Large-scale trucking is much more challenging to electrify than small cars. Steel production represents a large source of emissions which is difficult to abate. Faced with these challenges, how can Toyota get to netzero? What comprehensive strategies will we need? How do we work across industries? What are the most impactful things we can do today? These are questions we need to continually answer over the coming decades.

# The opportunity

We are looking for someone who can work across the critical areas of technology, economics, policy, and society in order to help evaluate and continuously evolve Toyota's long-term carbon neutral strategy. You will

1) Build a team of external experts and set up programs that leverage their expertise.

2) Direct external research on CO2 mitigation that considers technology, economics, politics, and society.

3) Provide technical advice on potential startup investments related to energy and climate.

4) Build and maintain relationships across different divisions of the Toyota group within the US and Japan to help drive strategies that work in different parts of the world.

# The team

We welcome you to create a new cross-functional effort that demonstrates existing strengths within TRI, primarily AMDD and MAC. The Accelerated Materials Design and Discovery (AMDD) group is accelerating the development of new materials for emissions-free mobility. The Machine Assisted Cognition (MAC) group is developing AI systems to augment (not replace) human decision-making, including decision-making around carbon-neutral strategies. In addition to working with materials science, behavioral science, and computer science professionals already within TRI, you will work to bring in the new collaborators from diverse fields needed to meet the challenge.

# We'd love to hear from you if you:

- Have a graduate degree in energy technology & policy (or related field), Ph.D. preferred.
- Have a strong research background, including peer-reviewed publications.
- Have effective written and verbal communication skills.
- Have proven experience working on cross-disciplinary problems.
- Have strong interpersonal skills and are good teammates.
- Thrive in a culture that values diversity, collaboration, humility, and learning.

Apply <u>here</u>

# Innovation and New Ventures Office (INVO)

# Northwestern | INVO Innovation and New Ventures

The Innovation and New Ventures Office (INVO) recently added a new page to their website to help connect the Northwestern community with job opportunities at Northwestern startups. These companies are translating and commercializing advanced technologies that were originally discovered in Northwestern labs. Positions listed include full-time, part-time and internships: <u>https://www.invo.northwestern.edu/technologies/startups/index.html</u>.



The future is what we make it.

UOP LLC, headquartered in Des Plaines, Illinois, USA, is a leading international supplier and licensor of process technology, catalysts, adsorbents, process plants, and consulting services to the petroleum refining, petrochemical, and gas processing industries, and an emerging leader in sustainable technologies. UOP is a wholly owned subsidiary of Honeywell International, Inc. and is part of Honeywell's Performance Materials and Technologies strategic business group.

When you join Honeywell, you become a member of our global team of thinkers, innovators, dreamers and doers who make the things that make the future. That means changing the way we fly, fueling jets in an eco-friendly way, keeping buildings smart and safe and even making it possible to breathe on Mars. Working at Honeywell isn't just about developing cool things. That's why all our employees enjoy access to dynamic career opportunities across different fields and industries. Are you ready to help us make the future?

An excellent career opportunity is currently available for a Research Scientist within UOP's R&D New Materials Research group located in Des Plaines, IL.

#### **Key Responsibilities**

- Maintain an active project portfolio of research projects in the areas of Materials Synthesis research and development.
- Document all innovative concepts and assist in the generation of intellectual property.
- Ensure alignment of goals of research projects with business objectives.
- Interface with other UOP departments including Catalysis, Adsorbents, Pilot Plants, Analytical and Advanced

Characterization to ensure robust materials research and development programs.

- Stay current on patent and open literature as they relate to research programs.
- Communicate important project results to cross-functional program teams.
- Participate in all departmental safety activities and conduct all work with a high degree of attention to safety.

#### YOU MUST HAVE

• Ph.D. in Chemistry, Chemical Engineering, or related field.

#### WE VALUE

- Prior experience in industrial research and development.
- Experience in materials, catalyst or process invention
- Expertise in materials synthesis techniques and methods of characterization.
- Working knowledge of statistical analysis of data
- An open, honest and team-oriented personality.
- Eagerness to get involved in hands-on work, with a positive attitude that steps in when new skills need to be quickly acquired
- Creativity in pushing the frontiers of knowledge that contributes positively to the growth of the company.

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11 August 2021

# Post doc announcement: ink formulation chemist

#### Position #3065784

### Post doc description

HP has another Post-Doctoral R&D chemist position in our imaging and printing business in our Corvallis, Oregon facility. The work will be focused on development of new ink formulations for inkjet printers.

Our group is responsible for the design and formulation of inkjet printing inks including the characterization of the print attributes and robustness. This project will focus on developing components that expand various ink attributes such as optical density and durability on different media. The project will also involve optimizing the new inks for drop formation and the printing process. Part of the role is to collaborate with the printer component designers to implement system level changes to balance tradeoffs in the various components.

Aspects of this role include:

- Component development, refinement, and selection
- Formulation design (includes design for performance, manufacturing and chemical regulatory guidelines)
- Print system characterization
- Cross functional/ pan global team participation and leadership
- External supplier material co-development and manufacturing

Our group is part of a chemistry center of excellence that develops inks for the different print businesses. While we work across several sites, this project will partner with colleagues at our Corvallis, Oregon location. The Corvallis site includes a combination of R&D and manufacturing facilities with work ranging from MEMS fabs to development of large industrial printing presses.

## Qualifications

- A recent (<1 year) PhD in chemistry, chemical engineering, or related field.
- Understanding of fundamental chemical mechanisms, key areas include
  - Pigment and dye chemistry
  - Polymers in solution
  - o Organic and inorganic nanoparticle suspensions
  - o Interfacial and surface chemistry
  - o Proficiency in appropriate analytical instruments and the data interpretation
- Wet chemistry experience
- Strong written and spoken communication skills.
- Ability to creatively solve problems in a fast-paced product development environment
- Ability to work & effectively interact (remotely, as needed) with team members from other disciplines, projects, organizations, cultures, & companies.
- Demonstrated leadership, teamwork/interpersonal, communication and technical skills.
- Resourceful, creative, and flexible
- Fluency in English

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## **Desired qualifications**

- Programming skills
- Familiarity with printing technology and color science
- Formulation experience is a plus

To apply, please visit our website: <u>https://hp.wd5.myworkdayjobs.com/ExternalCareerSite/job/Corvallis-Oregon-United-States-of-America/Post-Doc-Ink-Chemist\_3065784-2</u>



# **Current Opening**:

Princeton Computer Science is seeking a Data Scientist to work with its world-renowned faculty and students to solve biomedical research questions using novel computational approaches. The data scientist will develop novel, scalable algorithms and machine learning techniques and apply these to large repositories of biomedical data. They will work with faculty, post-doctoral researchers, and graduate students in research projects across multiple biomedical applications, particularly in human genetics and disease.

As a Data Scientist you will work in a collaborative, multidisciplinary environment and actively contribute your skills to advance scientific discovery. You will have access to Princeton's first-class resources, the opportunity to co-author academic publications, to offer short courses and workshops on data science, and to collaborate with the larger data science community. You will join a team of five Data Scientists working across multiple disciplines as part of the Schmidt DataX Project at Princeton, an initiative made possible by a major gift from Schmidt Futures.

Appointments are for 3-years and offer a very competitive salary and excellent opportunities for growth and career development. The Biomedical Data Science initiative is spearheaded by the Department of Computer Science, with strong connections to the Lewis-Sigler Institute for Integrative Genomics, Center for Statistics and Machine Learning, and other engineering departments.

## **Required Qualifications:**

- Ph.D. required in computer science, mathematics, statistics, data/computational science, or related disciplinary field or equivalent combination of educational training and relevant experience.
- Strong coding/algorithm prototyping skills, and ability to explain and document work.
- Proficiency in one or more of the following: Python, R, C/C++, or Julia.
- Experience using data analysis, statistics, machine learning, and/or scientific computing to address basic research questions; or commensurate achievements

Questions? Contact Project Manager, Ellen DiPippo

**Ready to Apply**: Full job description and access to application on Princeton's job posting system: <u>https://www.princeton.edu/acad-</u>positions/position/19701.

Do you have news or opportunities to share in the Weekly Bulletin? Please email them to Colleen Kjellberg at <u>colleen.kjellberg@northwestern.edu</u>

For an archive of the Department of Chemistry's Weekly Bulletins, please visit: Bulletin Archive