

NYU  
DEPARTMENT OF  
CHEMISTRY

# CHEMISTRY Notes

FALL 2018 | ISSUE 2

ISSUE

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## welcome

### LETTER FROM THE CHAIR

The Department of Chemistry at NYU is at a hub of intellectual and cultural activity at Washington Square in New York City. The Department continues on a steep upward trajectory, following major faculty hiring and renovation. There is so much going on in the department these days, and it is my pleasure to share some highlights with you here in this newsletter. We would love to hear from you! Please keep us updated at [chemistry@nyu.edu](mailto:chemistry@nyu.edu). We welcome your news and, of course, your support. To find ways that you can support NYU Chemistry, please visit the following web site: [as.nyu.edu/chemistry/alumni/giving-opportunities](http://as.nyu.edu/chemistry/alumni/giving-opportunities).

**James Canary**

*Professor of Chemistry and Department Chair*



## Diversity & Growth

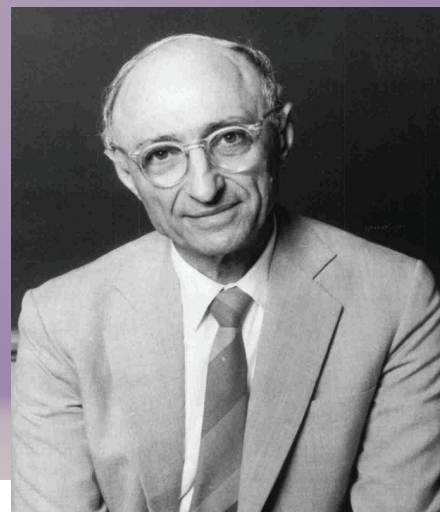
**The Fall 2018 entering graduate class is the largest and most competitive in the Department's history.** We received a record number of applications and saw a marked increase in the number of underrepresented minority students admitted and supported.

The Department is home to two thriving REU Programs. In addition to the NYU Materials Research Science and Engineering Center's well-established REU program, our Chemical Biology Program funded by the NSF had a very successful second year, offering undergraduates research experience opportunities.

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# MARTIN POPE turns



**Martin Pope**, Professor Emeritus of Chemistry at New York University, celebrated his 100th birthday in August. Professor Pope retired from the NYU Chemistry faculty in 1988, but his scholarly activities continue to this day. He is a widely acknowledged pioneer in the field of organic semiconductors who made a series of seminal discoveries at NYU that are the basis of the currently hot fields of organic electronics and organic light emitting diodes (OLED).

Over the years, Martin Pope published more than 100 manuscripts. His discoveries have made possible many of the advances that have been achieved in the field of organic electronics and the field of organic light-emitting diodes (OLEDs). The monumental book (two editions) entitled *Electronic Processes in Organic Crystals and Electronic Processes in Organic Crystals and Polymers* (6th printing),

by Martin Pope and Charles E. Swenberg published by the Clarendon Press (Oxford), is a classic in the field that has been cited close to 5000 times. Martin Pope was a Fulbright Scholar, he received the citation for Outstanding Contributions to the Department of Energy of the United States, and was the recipient of the Townsend Harris Medal, City University (CCNY). In recognition of his pioneering contributions in the field of organic molecular semiconductors, the prestigious 2006 Davy Medal was awarded to Professor Pope by the Royal Society (UK).

His research was supported for many years by the Atomic Energy Commission and later by the Department of Energy (DOE). Martin Pope was also He is a Fellow of the *American Physical Society*, *The New York Academy of Sciences*, and *the American Association for the Advancement of Science*. Happy 100th birthday Professor Pope! ■

# Happy Birthday!



## CONTINUED FROM PAGE 1

The Department is proud of embracing the spirit of diversity and inclusion, witnessed by faculty and student involvement in several groups and activities on campus and beyond. A notable initiative led by graduate students Alex Andia and Sarah Blosser is the Association for Diversity in Science and Engineering (ADSE), which was selected for the 2018 NYU Presidential Service Award. Among ADSE's projects this year was the LGBTQ+ Chemistry Research Conference, which highlighted both the scientific advances and voices of the LGBTQ+ community. This unique event took place annually during Pride Week in NYC. The first conference was held in June and featured keynote speaker Dr. Eric Schelter from the University of Pennsylvania. ■





# DEPARTMENT NEWS

## Faculty News

- Assistant Professor **Tianing Diao** was selected as a 2018 Sloan Research Fellow. The early-career scholars honored by the Alfred P. Sloan Foundation «represent the most promising scientific researchers working today. Their achievements and potential place them among the next generation of scientific leaders in the U.S. and Canada.»
- Assistant Professor **Stefano Sacanna** received a Young Investigator Award from the Human Frontier Science Program (HFSP). These prestigious awards are intended to promote collaborative international research and include funding for three years.
- Professor **Mike Ward** was elected a Fellow of the European Academy of Sciences.
- Professor **Alexej Jerschow** received the Golden Dozen Teaching Award given by the NYU College of Arts and Science.

- **Professor Alexej Jerschow's group** was selected for a \$150K validation grant for their magnetic resonance battery diagnostics technology in the PowerBridgeNY competition. The method could provide important non-destructive analysis modalities for inspecting rechargeable batteries.

## Graduate Student News

- **Thomas Anderson** (Woerpel Lab) received the Outstanding Teaching Award from the College of Arts and Science.
- **Isabel Olsen** (Kahr Lab) received the Outstanding Teaching Award from the Graduate School of Arts and Science.
- **Justin Diccianni** (Diao Lab) received the GSAS Dean's Dissertation Fellowship.
- **Mohaddese Mohammadi** and **Emilia Silletta** (Jerschow Lab) were awarded the Powerbridge Validation Grant.

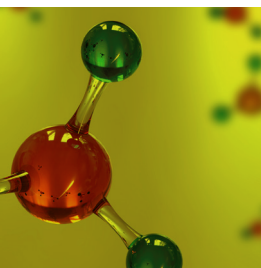
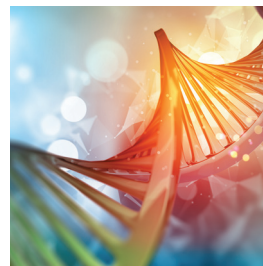
**The New York University Department of Chemistry is pleased to announce the hiring of two new faculty members.**



**Tania Lupoli**, who earned her graduate degree at Harvard and did her postdoctoral research at Cornell, joined our research program in chemical biology.



**Glen Hocky**, who earned his graduate degree at Columbia and did his postdoctoral research at the University of Chicago, joined our research program in theoretical computational chemistry.



## Alumni News

- **Neil Garg** (B.S. 2000, Walters Lab) is the recipient of Baylor University's Robert Foster Cherry Award for Great Teaching for 2018.
- **Philip S. Baran** (B.S. 1997, Schuster Lab) was elected to the National Academy of Sciences.
- **Veronica Murphy** (B.S. 2016, Kahr lab) hit the presses at Barnes & Noble with CHEMISTRY, one of a "Baby's Big World" series of board books for children.

## Chemical Biology Initiative

This exciting initiative will advance scientific research and education at the interface of chemistry, biology, and medicine. The stated aim of the interdisciplinary field of chemical biology is to develop molecular solutions to challenges in biology and medicine. As the fundamental understanding of biological mechanisms deepens, the solutions often require intricate chemical approaches. These integrate a range of synthetic and analytical techniques to elucidate and manipulate biological systems and provide therapeutic solutions for pathological states. The Chemical Biology Initiative at NYU will allow renovation of over 68,000 square feet in the Silver Complex and allow recruitment of six faculty members.

## Featured Publications

- Nature Chemical Biology 14 (2018) features a study called "**FINO2 initiates ferroptosis through GPX4 inactivation and iron oxidation**" by Sokol Professor of Medicinal Chemistry **Keith Woerpel**, his group members

and collaborators. Among the NYU authors are: graduate students Alex Andia (first author), Dan Heindel, Brisa Hurlocker, Chris Vaiana, Dylan Zuckerman, researchers Amy Chan and Eveliz Peguero-Pereira, and Professor Lara Mahal.

- Professors **Alexej Jerschow** and **Mark Tuckerman** collaborated on a study yielding experimental proof of the asymmetry in ion transport mechanisms in water that was previously only hypothesized theoretically. The publication in Physical Review Letters (August 13, 2018), called "**Unusual Proton Transfer Kinetics in Water at the Temperature of Maximum Density**," credits first author postdoctoral fellow Emilia Silletta.
- Professor **Zlatko Bacic**'s perspective article was featured on the cover of the Journal of Chemical Physics 149, 100901, (2018). Graduate student Joseph Cedagorta is credited with preparing the figure that graces the cover of the American Institute of Physics journal. The article is entitled, "**Perspective: Accurate treatment of the quantum dynamics of light molecules inside fullerene cages: Translation-rotation states, spectroscopy, and symmetry breaking.**"

**We love to hear from alumni!**

**Please send us your news!  
If nothing is new, tell us what's  
old! Write to:**

**chemistry@nyu.edu**

**Hello!**





# DEPARTMENT EVENTS



NYU Abu Dhabi Campus

## NYU Chemistry Around the World

- **NYU-TAU Symposium** (Tel Aviv) organized by Tamar Schlick of New York University and Michael Urbakh of Tel Aviv University, featured 18 speakers, including NYU President Andrew Hamilton and TAU President Joseph Klafter.
- **International Symposium Frontiers** in Chemical Biology (Shanghai), sponsored by the NYU-ECNU Center for Computational Chemistry and organized by Parajmit Arora, John Zhang, and Yingkai Zhang, featured 25 speakers from both hemispheres.
- The first ever **Chemistry Alumni Luncheon** was held at NYU Shanghai for graduates of our NYC program living in the Shanghai area.
- The second **Middle-Eastern Materials Science Conference** (MEMS2018) will be held in November 2018 at New York University Abu Dhabi (NYUAD).

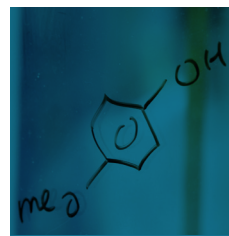
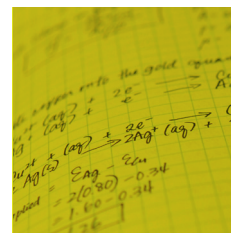
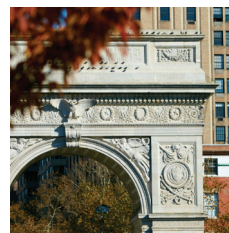


Empire State Building in NYC

## NYU Chemistry in NYC

- **The 2018 McNelis Lecture** was delivered by Jonathan Ellman of Yale University on April 6, "Chemistry: Limitless Applications of an Infinite Diversity of Possible Molecular Structures."
- **Modern Tactics in Organic Synthesis**, a mini-symposium hosted by Tianning Diao on April 20, featuring 6 illustrious speakers: Paul Chirik (Princeton), Vy Dong (UC Irvine), Sarah Reisman (CIT), Karl Scheidt (Northwestern), Donald Watson (Delaware) and Keith Woerpel (NYU).
- **The X-Ray Diffraction Workshop** was hosted by NYU Chemistry crystallographer Chunhua Tony Hu in June. This biennial event features an exciting combination of talks and hands-on training sessions over the course of three days.
- **The NYU Nature Chemical Biology Conference** took place in the Kimmel Center in August. Among the conference organizers were NYU Chemistry's Parajmit Arora and Dirk Trauner, and the speakers list included our own Ned Seeman.



The background of the advertisement is a photograph of a red brick building with white window frames and a large tree in front of it. A yellow taxi is blurred in the foreground, suggesting motion.

*Applications to the* **FALL 2019**  
**DOCTORAL PROGRAM**

The deadline for applications to the **doctoral program in Chemistry** at NYU is **December 12, 2018**. For full consideration, get your application in by the deadline date, when we will begin our review! The application is available on the department website and also on the Graduate School of Arts and Science Admissions Resource Page: [gsas.nyu.edu/page/grad.admissionsapplication](https://gsas.nyu.edu/page/grad.admissionsapplication)