

Shepard Hall and Quadrangle - City College of New York (CCNY) 1904

Chemical Engineering Newsletter

Grove School of Engineering at The City College of New York

03/2021

Prof. Castaldi's Engagement with ChE Department Faculty Leads to \$1 Million Project on Waste-To-Energy & Materials Recovery

Prof. Marco J. Castaldi is the lead on a new \$1 million project from the US Department of Energy Advanced Research Projects Agency – Energy (ARPA-E) program on “Gypsum & Clay-Based Additives to MSW for Pre-Combustion Enhancement of Syngas and Solid Residue Improvement.” The project will start in Spring 2021. Upon returning from an ARPA-E sponsored workshop on expanding the value proposition of Waste-to-Energy (WTE) facilities beyond electricity generation and landfill diversion, Prof. Castaldi presented the opportunity to the faculty, inviting all to participate in brainstorming sessions. Prof. Castaldi, Prof. Elizabeth Biddinger, and Interim Dean Alexander Couzis led the brainstorming efforts, producing a series of process diagrams and back-of-the-envelope calculations, proving the feasibility of the proposed processes. Ultimately, two proposals were submitted to ARPA-E – one on selectively co-feeding large-scale waste streams of gypsum & clay-based additives with municipal solid waste to alter the gases produced during gasification (the funded project), and one on extracting rare earth and precious metals from current WTE ash (which despite good reviews, was not funded). The funded ARPA-E project is part of the program “Topics Informing New Program Areas” where high-risk exploratory research is performed that has the potential to lead to transformative progress. Prof. Castaldi, an expert in the area of thermal conversion of wastes, connected with collaborators from industry and academia to strengthen the project. The funded team is comprised of PI Prof. Castaldi, co-PI Prof. Biddinger and senior personnel Profs. Robert Messinger and Xi Chen from Chemical Engineering at CCNY, along with Prof. Ashwani K. Gupta from the University of Maryland, Prof. Morton Barlaz from North Carolina State University, Dr. Alex Frank from Innoveering, Mr. Steve Goff from SpG Consulting and Mr. Michael Van Brunt from Covanta.

The Department of Chemical Engineering views the process of obtaining the grant as a template to increase collaborations within the department. Starting Spring 2021, “Research Brainstorming Fridays” have been a department-wide activity where faculty bring new research topics to share and brainstorm together to look for collaborative funding opportunities. The sessions allow faculty to apply their expertise outside of the applications they are traditionally engaged with while enhancing projects that they are currently working on.



Prof. Marco Castaldi



Department website: www.cny.cuny.edu/chemeng



www.cny.cuny.edu/engineering

MESSAGE FROM THE CHAIR

Dear Alumni and Friends of the Department,

As always, I hope our Newsletter finds you in good health! The Fall 2020 semester was exhausting and I believe students and faculty alike were happy when we made it to the end. Things are looking up in New York City this Spring and we are in the middle of planning for all eventualities in the Fall 2021 semester and are getting ready for ABET. For the latter, we need your feedback via our alumni survey ([click here](#)). You will see that we made good use of the online world in creating collaborations between alumni and students, faculty within the department and beyond, and also with our postdocs and graduate students that have led to promising results ranging from research funding and internships to publications. Many of you know that Prof. Jeffrey Morris, Director of the Levich Institute, and Prof. Sanjoy Banerjee, Director of the CUNY Energy Institute, are members of the ChE Department, but do you know the staff members who make these institutes possible? Take a look and you'll get a chance to meet them.

Did you know that March is *Women's History Month*? In honor of this, we would like to celebrate the many ChE women 'firsts' at CCNY. With the help of

Tom Castiglione, Registrar, and Prof. Sydney Van Nort from the CCNY Archives and their staff, we learned that the first female students to graduate with a Bachelor's in ChE were Kay Elsas (1) and Roslyn Keller (2) in 1946. It looks like Kay finished her course work in 1945, but both students graduated in June 1946. Arlene Spadafino* (ChE BE '63, ME '66) was our first female Master's program graduate, while Susan Brandes (ChE PhD '86) was the first female PhD graduate. Our very own Prof. Carol Steiner (3) wins the prize for most 'firsts'. She was the first female Assistant Professor (1985), the first one to get tenured, promoted to Associate and then Full Professor. You will see in the newsletter that Prof. Kathleen Stebe (4), our 2nd female PhD graduate, is our very first alumna to get inducted into the National Academy of Engineering (NAE). An impressive list of 'firsts' that I happily join as the first female Chair of the ChE Department at CCNY.

One last, but important note. Congratulations to Prof. Levi T. Thompson, Dean of the College of Engineering at the University of Delaware and our External Advisory Board Member, who was also inducted into the NAE.

Enjoy the Newsletter and I look forward to hearing from you!

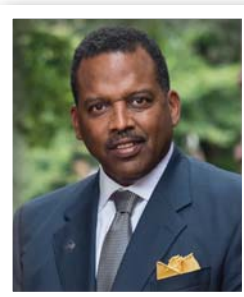
- Ilona Kretschmar

*Chair's Alumni Highlight: After **Lloyd Abrams** (ChE BE '61) graduated from The City College of New York in January of 1961 with a BE in Chemical Engineering, he started working for Pratt & Whitney (P&W) Aircraft on a nuclear engine aircraft. The project was terminated and he was transferred to the East Hartford research facility where he worked on deep space propulsion (ion engines). Then, P&W was awarded the fuel cell project for the Apollo mission and, since he was the only chemical engineer at P&W, he was put on the project. Interestingly (but not strange), folks did not really understand how the fuel cell worked. Lloyd was not satisfied at making things work without understanding why so he left P&W in September of 1963 and went to Rutgers to study surface chemistry and catalysis. He graduated with a PhD in physical chemistry in November of 1966. He then spent two years as a postdoctoral associate at Brookhaven National Laboratory (BNL). After completion of his work at BNL, he*

went to work at DuPont, from where he retired in 2012 after a wonderful career. Since October of 2012, Lloyd has been a volunteer assisting teacher at a local high school in math, physics, and chemistry. He states: "My experience at City and thereafter taught me how important a good education is and that is what I preach to my students." If anyone is interested in Lloyd's career highlights, please, check out his LinkedIn bio <https://www.linkedin.com/in/lloyd-abrams-a1615396/> or e-mail him at LloydAbrams@MSN.com.



Prof. Ilona Kretschmar, Chair



Prof. Levi T. Thompson



Lloyd Abrams ChE BE '61

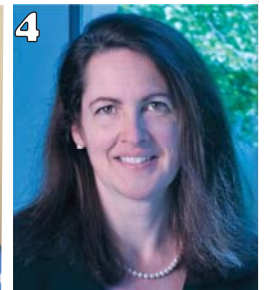


Kay Elsas ChE BE '46

Roslyn Keller ChE BE '46



Carol Steiner joined '85



Kathleen Stebe ChE PhD '89

A few of our female 'firsts' in ChE at CCNY. Photo credit for 1&2 Microcosm 1946 & Archives, The City College of New York, CUNY.

* Kohlheb was previously identified as first Master's program graduate, when in fact it was Spadafino. see erratum.

ChE Alumna Elected to NAE

Congratulations, Prof. Kathleen (Kate) Stebe, you make your alma mater proud!

Prof. Kathleen (Kate) Stebe, an alumnus of our department (ChE PhD, '89), was elected in February 2021 to the National Academy of Engineering (NAE). The NAE is a private, nonprofit institution whose purpose is to provide engineering leadership to the United States on a national level. Election to NAE is extremely selective and recognizes outstanding contributions to engineering research, practice and education.

Prof. Stebe is a faculty member in the Department of Chemical and Biomolecular Engineering at the University of Pennsylvania (U Penn) in Philadelphia, where she is the Richer & Elizabeth Goodwin Professor of Engineering and Applied Science; she has also served as Deputy Dean for Research. Prior to her appointments at U Penn, Prof. Stebe was in the Department of Chemical Engineering at Johns Hopkins University (JHU), where she served as the Chair. Prof. Stebe's research focuses on soft matter physics, particularly at fluid interfaces. She has investigated the dynamics of adsorption of surface-active molecules at interfaces and its influence on interfacial flows. More recently, Prof. Stebe's research has focused on the interaction and directed (robotic) assembly of colloids and bacteria at an interface, and the behavior of colloids in liquid crystalline phases. Prof. Stebe's election to the NAE cites her "contributions to understanding of nonequilibrium processes at soft matter interfaces and its impact on new technologies."



Kathleen (Kate) Stebe, ChE PhD '89

Kate and CCNY

Kate's ties to City College run deep, which makes her election all the more special to our Department. Kate's father (the late Peter F. Stebe) was a Professor of Mathematics at CCNY, and Kate herself, along with her siblings, are all proud bachelor's degree graduates of different departments at CCNY – in Kate's case in Economics, which many have found surprising given her eventual career path in Chemical Engineering.



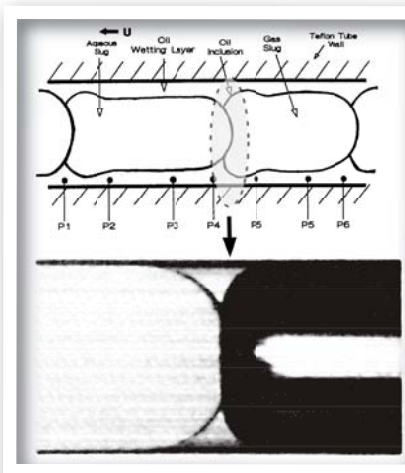
Kate in 1988 as a graduate student at CCNY and her PhD advisor Prof. Charles Maldarelli

Kate's doctoral thesis research, directed by ChE Prof. Charles Maldarelli, was among the first to be completed in the Levich Institute at CCNY. Kate began her graduate work resulting in her PhD thesis: *The Remobilization of the Interfaces of Moving Bubbles and Droplets Retarded by Surfactant Adsorption* during the period when the Institute, now directed by ChE Prof. Jeffrey Morris, was led by Prof. Benjamin Levich himself before his death in 1987. The leadership was then assumed by Prof. Andreas Acrivos, also an inductee of the National Academies of Science and Engineering.

Kate has been a big supporter of ChE at CCNY. Most recently, she has served as a member of our EAB from 2017 - 2020. Kate regularly approaches our faculty with invitations for proposal collaborations. She has recruited numerous students to doctoral programs at the respective institutions she has worked at and supported them on their future pathways into academia and industry. Thank you, Kate!

Our department has previously recognized Kate with the Stanley Katz Lectureship. Other significant achievements include the Frenkiel Award from the Division of Fluid Dynamics of the American Physical Society for a paper published from her doctoral studies; a fellowship at the Radcliffe Institute for Advanced Studies at Harvard, the Robert S. Pond Excellence in Teaching Award at JHU, and most recently, the 2018 Langmuir Lectureship Award.

Kate joins eight graduates from our department elected to the NAE. The others are Martin Sherwin (elected in 1988, ChE BE '60, PhD '67), Fred Krambeck (elected in 1999, ChE BE '63 PhD '68), Amos Avidan (elected in 2009, ChE PhD '80), Ghebre Tzeghai (elected in 2014, ChE PhD '84), Andrew Grove (elected in 1979, ChE BE '60), George Nemhauser (elected in 1986, ChE BE '58), Stanley Sandler (elected in 1996, ChE BE '62) and Arnold Stancell (elected in 1997, ChE BE '58).



PhD Thesis Research: Schematic (top) of train of alternating aqueous and gas slugs moving in a capillary lubricated by oil (bottom) microscope image adapted from Phys. Fluids A 1991, volume 3, pages 3-20 with the permission of AIP Publishing.

Alumni Make a Difference in Healthcare

The ChE Department is delighted to introduce Dr. Jude Phillip and Zubair Bhuiyan, two of our alumni in healthcare. Dr. Phillip recently started a position at Johns Hopkins University (JHU) and Zubair Bhuiyan is an Associate Scientist at AstraZeneca.



Jude Phillip, ChE BE '10
Assistant Professor at JHU

Dr. Jude Phillip (ChE BE '10) has joined The Institute for NanoBioTechnology (INBT) at JHU as an Assistant Professor. Jude's primary appointment is in the Department of Biomedical Engineering with secondary appointments in the Department of Chemical and Biomolecular Engineering and in Oncology. Jude's lab, the Phillip (tiME)n Lab, focuses on cells through the passage of time.

We asked Jude how his time at CCNY prepared him for his new position. Here is what he told us: *I think that my education at CCNY was foundational and critical to my career trajectory. I grew up in Grenada and I was drawn to Chemical Engineering at an early age, mainly due to an interest in manufacturing pharmaceuticals. However, before arriving at CCNY, I had never met another chemical engineer, and I think in addition to providing education regarding chemical engineering, my professors at CCNY inspired me to push beyond what I thought I could do and the impact I could have. CCNY chemical engineering professors are phenomenal!*

To me, one of the defining experiences at CCNY was during the intro class, ChE 228. For that class we had Prof. Alexander Couzis and I remembered becoming more thrilled with the notion of becoming a chemical engineer with every class. Just getting the idea of the breadth of the field and the impact that chemical

engineers have on society, showing me that chemical engineering went far beyond what we classically think, i.e., pharmaceuticals and energy, but it encompassed so much more. After that class, I did undergraduate research in Prof. Couzis' lab. I think that my conversations with Prof. Couzis over the years and working along with his graduate students and postdocs helped to solidify my choice to pursue graduate school.

During graduate school and beyond, my work has become a bit more biomedically-focused, however, the fundamentals in terms of how I think about the problems and the path to finding solutions is very much grounded in my chemical engineering education, which began at CCNY. I think the quality of education that students receive in the Chemical Engineering Department at CCNY is excellent, and it prepares you well for future career trajectories.

Zubair Bhuiyan (ChE BE '15) is an Associate Scientist at AstraZeneca. After graduating from CCNY, Zubair pursued a MS in the Department of Chemical & Biomolecular Engineering at JHU. During his MS he participated in a Co-Op program with AstraZeneca (then MedImmune), where he developed a drug delivery platform for antibody-DNA conjugates with potential applications in multiple therapeutic areas. In 2017, Zubair joined AstraZeneca full-time as an R&D associate and was promoted to his current level in June 2020. Currently he is involved in the development of formulations and dose forms for clinical and commercial drug candidates including antibody drug-conjugates, nucleic acid therapies (i.e. mRNA/DNA vaccines) and other novel biologic therapies.

A year ago, few of us would have paid attention to AstraZeneca, a research-based biopharmaceutical company headquartered in England. Now, however, the COVID-19 vaccine co-developed by AstraZeneca and the University of Oxford has been granted Emergency Use Authorization by the World Health Organization for the prevention of COVID-19 across the globe. We checked in with Zubair to see how he is doing.

What is it like to work at AstraZeneca? How have things been during the pandemic?

Zubair: *AstraZeneca is a highly science-driven organization and it's always very enriching to be involved in delivering vital therapies to people. Despite the numerous challenges we faced this year, I'm proud to have had the opportunity to be a part of a team that has worked tirelessly toward developing a solution to the current global pandemic.*

I am also very proud to say that many of the fundamental skills I use in my career were developed at CCNY whether in class or in Prof. Raymond Tu's Lab as an undergraduate research assistant.



Zubair Bhuiyan, ChE BE '15
Associate Scientist at AstraZeneca

Update on Buddy & ChAMP Programs

In our Fall 2020 Newsletter, we reported on two new programs (ChAMP & Buddy) that were established by our undergraduate leadership. Here is an update on how these programs are doing.

The Chemical Engineering AIChE Buddy Program

Connie Aleman (Class of 2021), AIChE Chapter president, reports: *There were 42 students in the Buddy Program (both "old" and "new" buddies). The program initially captured students' interests and supported a better integration of transfer students into the ChE program, however, as the semester continued and students became busier with homework and exams, the program struggled with keeping students connected. AIChE and Omega Chi Epsilon (OXE) are currently discussing how to address these issues. I hope the Buddy Program (or a similar program) will continue once we are back to in-person learning to reach its full potential.*

The Chemical Engineering Alumni Mentorship Program (ChAMP)

Kelvin Leo (Class of 2021), OXE president, states: *Following a successful pilot alumni mentorship program during summer 2020, OXE collaborated with Long Ng (ChE BE '18), a commercialization engineer at PepsiCo, and launched ChAMP for the academic year 2020-21. ChAMP's main goal is to build a supportive community for ChE undergraduates and alumni in conjunction with the ChE Department at CCNY. We are happy to report that so far, four ChAMP mentees have received offers for intern/job opportunities for Summer 2021. In general, all mentees have become more confident with their job/internship hunt and deemed the mentor-mentee relationship very valuable in developing their professional skills.*

Overall, 25 mentoring pairs participated in the ChAMP 2020-21 seven-month program from Fall 2020 to Spring 2021. The mentors are ChE alumni and the mentees consist of sophomore to senior ChE students. All conversations are mentee-driven. Student mentees learn to take initiative and take charge of their self-improvement with the guidance of their mentors.

Two ChAMP Success Stories:



**Mohammad "Rabbi" Alam
(Class of 2022)**

viewing skills as well as helped me create an outstanding resume. However, the best part about the ChAMP mentorship is the moral support that the mentors provide to the mentees. We all go through so much in our personal lives, and I was able to expand on my time management skills through sharing my struggles and weaknesses with Marjorie. I am learning that the essence of success is truly a positive mindset! I landed a summer internship with Estée Lauder, and I thank Marjorie for guiding me through the entire application process and my journey of self-exploration!

Rabbi says: *ChAMP has been one of the greatest opportunities that the CCNY Chemical Engineering major has implemented for career development. I was matched with CCNY Chemical Engineering Alumna Marjorie Bosko (ChE BE '15), who currently works at ConEdison. The mentorship program exposed me to several different interviewing styles that sharpened my inter-*



**Yaraslau Yajak
(Class of 2022)**

past few months, Edgar helped me rewrite my resume (almost from scratch!), gave a lot of valuable tips about the internship/job interview process, and shared his experience of going through the curriculum here at CCNY. He also introduced me to some organizations and societies to develop a professional network. Funny fact: I secured the Internship after talking to the Cummins recruiter at the Black Engineer of the Year Awards (BEYA) Conference, but Edgar was the one who told me about this conference! Overall, I think the ChAMP program is a great opportunity for the students to network and gain valuable advice and experience from alumni. So big thumbs up and 'thank you' to the people who came up with the idea and organized the ChAMP program! And of course, thank you to all the graduates who volunteered to help us!

Yaraslau reminisces: *I've secured a Chemistry & Kinetics Engineering Internship with Cummins for Summer 2021. I'm not exaggerating when I say that it would have been impossible without my mentor's help from the ChAMP Program. His name is Edgar Juarez (ChE BE '19), he is a CCNY ChE alumnus and he currently works for Chevron in Texas. During the*

From ChAMP co-creators, Kelvin Leo and Long Ng: *As ChAMP 2020-21 is ending, we are planning to continue the effort in building the community between alumni and current undergraduates of CCNY ChE. Therefore, we are actively recruiting ChE alumni who are interested. The next cycle will start August 2021. Want to get involved? Contact Long Ng at [longngche\[at\]outlook.com](mailto:longngche[at]outlook.com).*

ChE Research Highlights

Here, we highlight two collaborative efforts between ChE Faculty and CUNY Chemistry Faculty that have led to publications in high-impact Nature journals.

Water-responsive crystals published in Nature Materials

Xi Chen, an assistant professor in ChE at CCNY, and his co-authors at the **CUNY Advanced Science Research Center (ASRC)** created shape-changing crystals that enable energy transfer from evaporation to mechanical motion. Entitled: “Mechanistic insights of evaporation-induced actuation in supramolecular crystals,” the study appeared in *Nature Materials*.

Different from traditional crystals that are usually stiff and brittle, the new crystals have the ability to swell and contract in response to changes in humidity. These water-responsive crystals not only allow, for the first time, the direct observation of water-material interactions at the molecular level by using existing crystallographic, spectroscopic and computational methods, but also support the Chen Lab’s long-term goal of developing an evaporation energy harvesting technique that could open a path to directly harness the energy of natural evaporation.

The Chen Lab has a multi-disciplinary approach in the broader context of “hygroscience,” with research interests that are complementary to each other, including understanding the powerful and efficient chemical potential-induced interactions in biological systems, its nanoscale energy conversion mechanisms, and replicating these mechanisms outside their biological contexts for future engineering applications.

Journal Reference: Roxana Piotrowska, Travis Hesketh, Haozhen Wang, Alan R. G. Martin, Deborah Bowering, Chunqiu Zhang, Chunhua T. Hu, Scott A. McPhee, Tong Wang, Yaewon Park, Pulkit Singla, Thomas McGlone, Alastair Florence, Tell Tuttle, Rein V. Ulijn & Xi Chen in *Nature Materials* **20**, 403-409 (2021).

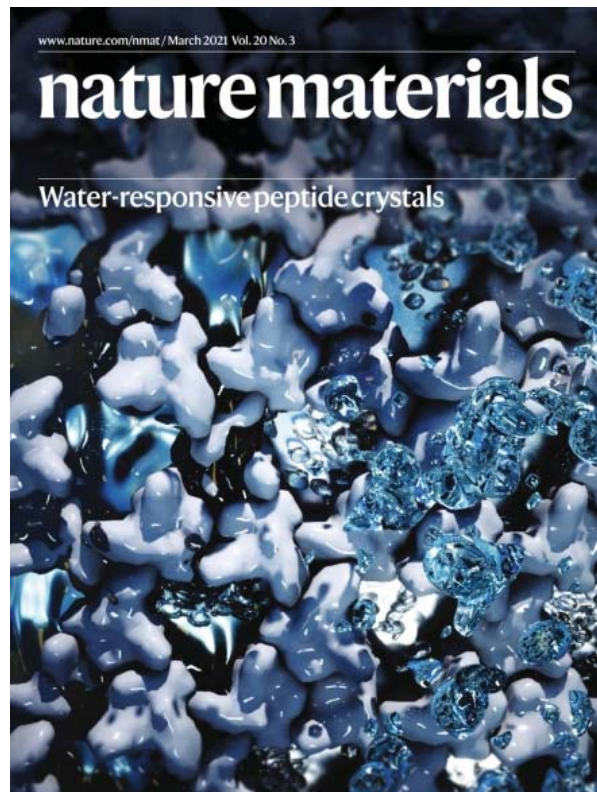
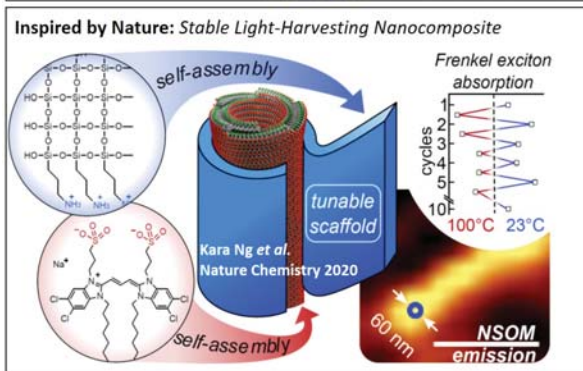
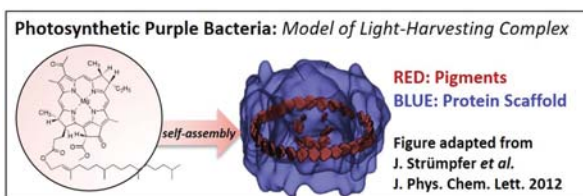


Image adapted from *Nature Materials*, Volume 20 Issue 3, March 2021.

Bio-inspired solar energy harvesting materials published in Nature Chemistry



Top image adapted from *Journal of Physical Chemical Letters*. Bottom image, Kara Ng, *Nature Chemistry* 2020.

Ilona Kretzschmar, professor & Chair of ChE at CCNY, and her co-authors from **CCNY and Queens College Chemistry** demonstrate a synthetic strategy to stabilize bio-inspired solar energy harvesting materials. Their findings, published in *Nature Chemistry*, could be a significant breakthrough in functionalizing molecular assemblies for solar energy conversion technologies.

The translation of Nature’s design principles to applications in optoelectronic devices has been limited by the fragility of the supramolecular structures used and the delicate nature of Frenkel excitons, particularly under mildly changing solvent conditions and elevated temperatures and upon deposition onto solid substrates. Researchers at CUNY overcame those functionalization barriers through composition of stable supramolecular light-harvesting nanotubes enabled by tunable, uniform cage-like scaffolds, and they showed that excitons within the cage-like scaffolds are robust, even under extreme heat stress, and control over nanocomposite dimensions is maintained on solid substrates. These bio-inspired nanocomposites provide a general framework for the development of next-generation organic devices made from stable supramolecular materials.

The Kretzschmar Lab is interested in nano and microparticles in general and more specifically in the modification and assembly of Janus and Patchy particles. Combining chemical engineering, chemistry, material and surface science, and molecular electronics we discover new materials and applications for novel colloidal systems.

Journal Reference: Kara Ng, Megan Webster, William P. Carbery, Nikunj Kumar Visaveliya, Pooja Gaikwad, Seogjoo J. Jang, Ilona Kretzschmar & Dorthe M. Eisele in *Nature Chemistry* **12**, 1157–1164 (2020).

Levich & CUNY Energy Institute Staff

The Levich Institute at CCNY, under the leadership of Prof. Jeffrey Morris, couldn't function without these two core personnel who contribute their talent and expertise on a daily basis in making sure that the Institute runs smoothly.

Mary Wright, Assistant Director, The Levich Institute

As Assistant Director of the Institute, Mary Wright manages all budgetary matters for the Institute as well as management of Institute seminars, processes all purchases and payments for research and office equipment and supplies, creates all staff/student appointments and re-appointments through the CUNY Research Foundation (RF) and CCNY, and assists the Director as chief administrator of the Institute as well as other faculty in the Institute. She acts as primary liaison with the CUNY RF as well as all college offices and outside vendors. She has developed and maintained a computer database and programs (in dBase) of all Institute records. She also designs and maintains the Institute website. Mary originally joined the Levich Institute in 1990 and then furthered her expertise by earning an MPA (Masters in Public Administration with an ad hoc specialty in Higher Education) in 2001 at Baruch College of CUNY. She also earned a BA in Spanish from Eastern Illinois University as well as a Certificate in Computer Programming from NYU.



Mary Wright



Junjun Mao

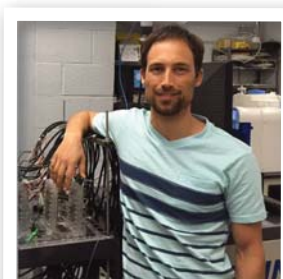
Junjun Mao, Systems Manager, The Levich Institute

Junjun Mao is the Systems Manager at the Levich Institute. Junjun received his bachelor's degree from the University of Science and Technology of China and his PhD in Chemistry from Bryn Mawr College in Pennsylvania. He joined the Institute in 2006 where he plans and manages the high performance computing facilities including computing clusters and virtual machine servers, and provides computing and programming support. His research interest is in biophysics simulation of electrostatic interactions in protein complex systems. He is also the author of the program Multi-Conformation Continuum Electrostatics (MCCE) that is widely used in the computational biophysics society.

The CUNY Energy Institute (EI), headed by Prof. Sanjoy Banerjee, is supported by Damon Turney and Michael Nyce who are indispensable to its overall operation. Sumer Mishue supports CUNY EI members, Profs. Rob Messinger and Masahiro Kawaji.

Damon Turney, Research Associate, CUNY EI

Damon Turney has been a Research Associate with the CUNY EI since 2011. He studied Physics at Colorado College and worked afterwards in industry for two years. In graduate school, he took a very interdisciplinary path, entering the University of California Santa Barbara (UCSB) Materials Science program then transferring to a collaborative PhD between the UCSB Environmental Science & Management and Sanjoy Banerjee's UCSB ChE Department. Damon's a nut for science, and can't get enough. He spends most of his hours helping the Energy Institute with grants and science execution.



Damon Turney

Mike Nyce, Battery Specialist & Senior Research Associate, CUNY EI



Mike Nyce

Mike Nyce is just more than nice, he brings in over 45 years of valuable battery chemistry and engineering knowledge and experience to the CUNY EI and ChE Department, which he joined in 2008. Mike has played an integral role in building the reputed Institute that it is today. He has nurtured, guided, and mentored countless PhD and undergraduate students through their arduous academic journey and passed on his highly valuable industrial experience rarely found in academia. His work on the Ni-Zn and MnO₂-Zn systems has led to many CUNY EI patents and a spin-off company, Urban Electric Power. Mike's assistance to the Chem-E-Car team has been crucial for the team's success. Mike's role as the Senior Research Associate is to bring forth new battery technologies to commercialization such as the 2nd electron MnO₂ technology currently being developed in collaboration with Sandia National Laboratories.

Sumer Mishue, NASA & PIRE Project Coordinator

Sumer Mishue joined us in October of 2019. She is the project coordinator for the NASA-CCNY Center for Advanced Batteries for Space in the ChE Department and the Partnerships for International Research and Education (PIRE) Project in the Department of Mechanical Engineering. Her role spans everything from drafting reports for grantors and building and managing websites, to coordinating meetings and onboarding new team members for the Center.



Sumer Mishue

Connect, Engage, & Contribute

Connect

There are many ways to connect with your alma mater. Please check the boxes that interest you.

- I would like to visit the campus.
- I would like to speak about my experience to students.
- I would like to attend departmental seminars on technical & research topics (Zoom, Mondays 2-3 PM).
- I would like to connect via LinkedIn group "CCNY ChemEng Alumni."
- I would like to mentor students.

You can always email us with updates or questions at:
chealumni@ccny.cuny.edu

Engage



Dr. Stelios Tsinontides, ChE BE '86

Stelios is a member of our External Advisory Board (EAB) and has supported the ChE Department by giving advice and guidance during EAB visits. He has also provided our student body with internship opportunities at the Food & Drug Administration (FDA). After graduating from CCNY in 1986, Stelios joined the PhD program at Princeton University where he graduated with a PhD in Chemical Engineering in 1992. After short stints as senior engineer at Mobil and Schering Plough, Stelios worked at various pharmaceutical companies such as Merck, Cephalon, Teva, and Shire/Takeda in roles ranging from Senior Director to Head. Currently, Stelios is the Director of the Office of Pharmaceutical Manufacturing Assessment at the FDA, where he evaluates facilities, process design, and control strategies to assess capabilities of manufacturers to produce quality pharmaceutical and biotechnology products at commercial scale, and provides leadership and technical expertise to Agency components internal and external to the Office regarding manufacturing quality issues. If you are interested in contacting Stelios, he can be reached via LinkedIn (<https://www.linkedin.com/in/steliostsinontides/>) or e-mailed at: Stelios.Tsinontides@fda.hhs.gov.

Contribute

Please fill out this form to provide an information update and/or to make a donation to the Department of Chemical Engineering at CCNY.

Name _____

Graduation Year & Degree from CCNY (if applicable) _____

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\$ _____ towards Fund for Excellence

\$ _____ towards Undergraduate Student Activities

\$ _____ towards Graduate Student Development

_____ A Gift in Kind

- My employer makes matching gifts.

Employer name: _____

To leave a gift in your will, simply share this sentence with your attorney or financial planner:

"I bequeath \$ _____ or _____% of my estate to the Department of Chemical Engineering, CCNY, Steinman Hall, T322, 140th Street & Convent Avenue, New York, NY 10031."

- I have included the Department of Chemical Engineering (CCNY) in my will.

Checks may be made out to: Department of Chemical Engineering (CCNY)

Gifts to the Department of Chemical Engineering (CCNY) are tax-deductible as permitted by law.

Please return information/pledge card and checks to: Department of Chemical Engineering Office, City College of New York, Steinman Hall Room 322, 140th Street & Convent Avenue, New York, NY 10031

Information-only updates may be sent to: chealumni@ccny.cuny.edu