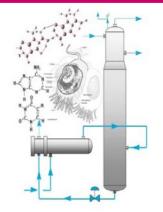
#### www.aiche.org/Chicago

# AIChE Chicago Section May 2022 Newsletter



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# **AIChE Chicago May Meeting**

"Understanding Structure and Dynamics of Novel Battery Electrolytes: Water-in-Salt and Deep Eutectic Liquids"

# Edward J. Maginn Department of Chemical and Biomolecular Engineering University of Notre Dame

2021-2022 Thiele Award Winner



Date:	Thursday, May 19th, 2022		
Location:	Moretti's Ristorante & Pizzeria Rosemont		
Address:	9519 W Higgins Rd, Rosemont, IL 60018		
Cost:	\$40 \$50	AIChE Global and Chicago Section Member	

- \$15 Unemployed/Retired
- \$10 Student

Registration and Information: https://cvent.me/9VYdbk

### <u>Agenda:</u>

Thursday May 19th, 2022 5:30-6:30 PM: Registration, Networking 6:30-7:30 PM: Dinner 7:30-7:45 PM: Section Announcements (AIChE Chicago Scholarships and Thiele Award) 7:45-9:00 PM: Technical presentation, Q&A

# **Chair's Corner**

With May monthly meeting approaching soon, we are at the end of the programming year. It is both exciting for the election of a new officer slate, and a little bittersweet to take the summer break when this will only be our second in-person meeting since the pandemic started.

I am very happy to report that our April meeting was a successful event. We hosted the student poster competition again since the last time in April 2019 and had nine undergraduate and four



graduate posters attending from Northwestern University, Illinois Institute of Technology, and University of Illinois Chicago. The meeting saw great attendance in both students and professional members, and our speaker Chris Nicholas delivered an engaging talk on catalysis and entrepreneurship. It was very great to see familiar faces again, as well as meeting new people. I personally feel very fulfilling to be able to bring back the in-person meeting and grateful for the support the Section has been receiving. I am looking forward to seeing our members in May meeting.

May is also our election time, where we will vote in the new Board of Directors (BOD) for the next programming year 2022-2023 led by our Chair-Elect, Sarika Goel. Every year, I am excited see our volunteers growing within the organization, and welcome new members joining the officer slate and contribute to maintain our Section activities and health. You can find the biographies of the candidates and elected officers for next year in this Newsletter.

In the same spirit, I would like to express my deepest gratitude to the current BOD members and volunteers who have been supporting both the Section operation and Midwest Regional Conference. There are a lot of names to list out, but I would like to send a personal thank you to each member who I have the privilege to work with for many years, and especially this year. I have learned a lot from each of you, each of your advice and support has been both helpful and kind, and your patience is much appreciated. The experience I have gained from Chicago Section is very valuable, and I cannot wait to continue working with our amazing volunteers in the future.

Last but not least, we will be announcing the Thiele award and scholarship winners for this year in May meeting. I would like to take this chance to acknowledge and thank our sponsor bp for the Thiele Award and the donations from our members to support the scholarship fund.

I'm confident that our Section will continue to be one of the largest local sections, together with being the oldest section within AIChE. We have had a good 98-year run, and are marching toward a century of success, and with that, thank you to all of our members for your continued participation.

#### Ha Dinh

AIChE Chicago Section Chair AIChE Senior Member

### May Meeting Speaker Information

Understanding Structure and Dynamics of Novel Battery Electrolytes: Water-in-Salt and Deep Eutectic Liquids

#### Speaker's Bio:

Edward Maginn is the Keough-Hesburgh Professor in the Department of Chemical and Biomolecular Engineering at the University of Notre Dame. His research group develops and applies advanced molecular simulation methods to study the structure and thermophysical properties of charged fluids. Maginn was a pioneer in the use of molecular simulations to investigate ionic liquids and holds several patents in the field. He is a Fellow of both the American Institute of Chemical Engineers and the American Association for the Advancement of Science. He serves as a Senior Editor of the Journal of Physical Chemistry and is a Trustee and Executive Director of the non-profit CACHE Corporation.



#### Abstract:

Demand for electrical energy storage is growing rapidly as we transition to a lower carbon economy. Batteries offer one promising technology to meet this need, but the capacity and type of battery required depends on the application. To be paired with solar and wind facilities, batteries need to be scalable, inexpensive, and capable of storing huge amounts of energy for days at a time. Batteries for electric vehicles or smaller-scale applications need to overcome some of the limitations of current lithium-ion batteries, including use of more earth-abundant materials, improved energy density, and elimination of flammable electrolytes. In both cases, the discovery of new types of electrolytes is proving to be key to enabling the development of new batteries.

In this talk, I will highlight recent work our group has conducted to better understand the structure and dynamics of deep eutectic liquid electrolytes and super-concentrated "water-in-salt" electrolytes. In collaboration with experimental colleagues, we have used advanced molecular simulation methods to understand the local structure of charge carriers such as Li+ and Zn2+ and redox active species in these electrolytes. We have found that additive "supporting salts" can dramatically change the solvation environment near an electrode surface. We have also explored how dynamic properties such as diffusivity, viscosity, and ionic conductivity depend upon the type of electrolyte used. By gaining a fundamental understanding of these systems, we hope to develop improved electrolytes that will enable breakthroughs in energy storage for a range of applications.

Registration: <u>https://cvent.me/9VYdbk</u>

### May AIChE YP Distillery Tour

We will be attending a distillery tour on May 26th. Attending is free but there are limited spots so be sure to <u>RSVP</u> ahead of time to obtain a spot!

Location: Rhine Hall Distillery

2010 W. Fulton St. Chicago, IL 60612

When: Thursday, May 26th @6PM

Cost: Free



# Dr. Edward Maginn 2021 Ernest W. Thiele Award Recipient

Congratulations to Dr. Edward Maginn, Professor at the University of Notre Dame for being awarded the 2021 Ernest W. Thiele award!

Dr. Maginn is awarded the 2021 Ernest Thiele Award for his leadership in computational molecular modeling and its application toward new technologies involving charged fluids, as well as for creation of the open-source Monte Carlo package Cassandra.

The Ernest W. Thiele award is presented annually to a Midwest region member of AIChE who has made outstanding contributions to advance the practice of Chemical Engineering. The award is sponsored by bp, and consists of a plaque and a \$1,000 honorarium.

Please join us in congratulating Dr. Edward Maginn on his achievement. This prestigious award will be presented at the May meeting.

### Ernest W. Thiele Award Recipients

	<b>RECIPIENT</b>	<b>AFFILIATION</b>	RECOGNITION & ACHIEVEMENT
2021	Edward Maginn	University of Notre Dame	For his leadership in computational molecular modeling and its application toward new technologies involving charged fluids, as well as for creation of the open-source Monte Carlo package Cassandra.
2020	Dennis O'Brien	UOP / Jacobs (retired)	For his ability to innovate and conduct original research notably in the area of detergent alkylation, and for contributing to the chemical engineering profession at both the local and national levels.
2019	Linda Broadbelt	Northwestern University	For distinguished contributions to the field of complex kinetic modeling, particularly for the development of automated mechanism generation and mechanistic models applied to diverse chemistries.
2018	Donald Chmielewski	IIT	For advances to the theory of control system design and service to our profession through mentorship, education and leadership.
2017	Doug Nafis	UOP	For innovation and development in refining and petrochemical process research and promotion of STEM with students through the "You Be the Chemist" program.
2016 2015	Satish Parulekar Randy Snurr	IIT Northwestern University	For research in biotechnology, teaching and service to AIChE. For his leadership and creativity in advancing the application of nanopo- rous metal-organic frameworks in gas separations, gas storage, and showing the power of molecular simulation to design new absorbents.
2014	Alan Zagoria	UOP, A Honeywell Co.	For his leadership and creativity in hydrogen technology in refining and other areas.
2012	Richard Hoehn	UOP, A Honeywell Co.	For his leadership and creativity in hydroprocessing technology.
2011	Urmila Diwekar	Vishwamitra Research Institute	e For leading the development of uncertainty analysis in processes
2010	J. Peter Clark	Consultant	For leading the development of numerous food products and new food preparation processes, and as a mentor and teacher.
2009	Harold H. Kung	Northwestern University	Seminal contributions to the fundamental understanding of catalytic phe- nomena, innovative design of novel catalytic structures, and leadership in the teaching of sustainability.
2008	Robert Lyczkowski	Argonne	Innovative application of multiphase theory and computational fluid dy- namics in the areas of nuclear, fossil and biochemical engineering.
2007	Lynn H. Rice	UOP	For his fundamental contributions to the petroleum refining isomerization
2005	Dimitri Gidaspow	IIT	process. For his fundamental contributions to computational fluid dynamics, multi- phase flow and fluidized bed systems and as an educator.
2004	Ted M. Knowlton	PSRI	For his contributions to fundamental and applied research, and his leader- ship in the fields of fluidization and particulate solids.
2003	Ali Cinar	IIT	Contributions in process modeling, monitoring and control. As an educator championing computers and statistics.
2002	Julio Ottino	Northwestern University	Research in Chaos Theory and mixing of solids and liquids
2001	Paul Sechrist	UOP	Contributions to computational fluid Mechanics, CCR, and FCC refining processes
2000	Henry Linden	IGT (retired)	Leadership of the Institute Of Gas Tech.
1999	S. George Bankoff	Northwestern University	Heat transfer advances in chemical and nuclear engineering
1998	Arvind Varma	University of Notre Dame	Fundamental advances in synthesis of materials, catalysis and reactor stability
1997	Hamid Arastoopour	IIT	Academic leadership and environmental engineering
1996	Rathin Datta	Argonne	Original research in metabolic engineering and membranes
1995	Norman Li	UOP	Pioneering research in membranes and separations
1994	J.W. Westwater	University of Illinois	Research in Heat transfer and contributions in teaching
1993	R.J. Bertolacini	Amoco	Catalysis research innovations and leadership
1992	J.J. Carberry	University of Notre Dame	Chemical Reaction Engineering research, innovation, and education
1990	R.S. Mah	Northwestern University	Chemical Process System Analysis
1989	D.T. Wasan	IIT	Research and Progress on Separation Processes
1988	L.O. Stine	UOP	Petroleum/Petrochemical Processes
1987	G. Thodos	Northwestern University	Physical Property Advances
1986	T.J. Hanratty	University of Illinois	Advances in Fluid Mechanics
1985	B.B. Broughton	UOP	Aromatics Separation Processes, adsorptive separation
1983	E.W. Thiele	Standard Oil (Indiana)	Catalysis, Distillation fundamental advances

# **Congratulations to McCormack Award Winners**

Each year, the McCormack award is given to one chemical engineering undergraduate student at Northwestern University, University of Illinois at Chicago, and Illinois Institute of Technology based on a combination of excellence in study, research, and extra-curricular activities. The award is presented in honor of Harry McCormack, a founding member of the AIChE Chicago section as well as long-term department chair at the Illinois Institute of Technology.

Congratulations to this year's winners!

# 2022 McCormack Recipient

# Kelley Osterberg Northwestern University (NU)

Northwestern University's Chemical and Biological Engineering Department has nominated Kelley Osterberg for AIChE's McCormack award because she is the perfect example of a whole-brain engineer. Kelley has drawn from her keen technical knowledge, her musical training, her peer mentoring skills, and her wide-range of work experiences to become an effective leader and creative problem solver. Impressively, she will graduate with dual majors in Music and Chemical Engineering and a minor in Computer Science. In the Fall she will be attending graduate school for music performance, and we can't wait to find out what she does next.



### **Bio:**

In addition to my chemical engineering studies, I have kept busy during my time at Northwestern with a minor in Computer Science and a dual degree in Oboe Performance through the Bienen School of Music. I have spent my summers in a variety of ways, from interning at Prime Impact Fund in Cambridge, MA to playing in the orchestras at the Miami Music Festival. Through my internship at Prime, I had the opportunity to find promising early-stage climate tech companies and evaluate their first-round pitches, as well as use my computer skills to design a brand-new system for emailing their VIP venture contacts. My favorite part of my studies in chemical engineering came from my final quarter, when I learned how to operate and analyze a distillation column in the senior lab class. After graduation, I will spend my summer as the Teaching Assistant fellow at the Brevard Music Center before starting a Master's of Music in Oboe Performance in the fall.

# 2022 McCormack Recipient

#### Paul Diaz

### University of Illinois at Chicago (UIC)

The Department of Chemical Engineering proudly announces Paul Diaz as our selection for the Henry McCormack Award.



#### **Bio:**

Paul will be graduating in May 2022 with a 4.0 UIC GPA. During his time at UIC, Paul has worked with companies leading in a variety of industries that encompass the versatile skillset of a chemical engineer. Paul has worked in Dr. Said Al-Hallaj's research group at AllCell Technologies as a research and development intern to study the optimization of thermal runaway technology for lithium-ion battery packs and improve the commercial production process of the company's patented technology. Paul also worked with Koppers Inc., a global supplier of carbon compounds and chemicals, as a process engineer intern. His time at the company fostered the mindset of safety culture and project management in a chemical refinery environment through firsthand experience and industrial mentoring. Throughout his time at UIC, Paul has been an active member and past board member as class representative and activity coordinator of the UIC AIChE student chapter. Paul has also worked with Dr. Betul Bilgin on several department endeavors; a company outreach program for student engagement with the UIC Association of Chicago Chemical Engineering and Science Students (ACCESS) club, and a project to engage J. Sterling Morton West High School students in STEM activities via the NSF S-STEM program. Paul is an active volunteer to the Archdiocese of Chicago as a custodial assistant to St. Leonard's church and school. After graduation, Paul will be working at Constellation Energy as a Nuclear Plant Engineer to support troubleshooting and outage schedules, optimize plant system performance, and enhance technical programs.

# 2022 McCormack Recipient

# Pulkita Jain Illinois Institute of Technology (IIT)

The Department of Chemical and Biological Engineering at Illinois Tech is proud to announce Pulkita Jain as our selection for the AIChE Chicago Section Harry McCormack Outstanding Senior Award. She has consistently demonstrated a combination of excellence in academics, research, and departmental service.



### **Bio:**

Pulkita grew up in Delhi, then moved to Santa Barbara where

she completed Associate Degrees in Chemistry, Physics, and Mathematics before transferring to Illinois Tech in Fall 2020 during the middle of the pandemic. Upon coming to Chicago, she immediately began pursuing research positions due to her passion for it. She was selected as the RES-MATCH Scholar in Fall 2020 and began her research under the supervision of Dr. Rashid. The objective of her research was to develop a model to detect and predict hyperglycemia in patients suffering from Type 2 diabetes. Afterwards, she was selected as one of the scholars in the Program for Undergraduate Research and Education within the Armour College of Engineering. In this program, Pulkita continued to work with Dr. Rashid to further progress the research during the Spring and Summer 2021 semesters. Based on her research results, Pulkita had the opportunity to present a poster, as well as give an oral presentation, at the Chicago Area Undergraduate Research Symposium in April 2021. She also published her research in the Undergraduate Research Journal at Illinois Tech.

Outside of her research and studies, Pulkita works as the chemical engineering and chemistry tutor at the Academic Resources Center. Recently, she has also been working as the Peer Mentor in chemical engineering to mentor and guide the incoming chemical engineering students. Pulkita is also the president of the Illinois Beta chapter of Tau Beta Pi and a dedicated member of the AIChE and SWE chapters at Illinois Tech. She has been featured as the graduating Armour College engineering student in Illinois Tech's newspaper.

In her free time, Pulkita likes to volunteer as a tutor with St. James Catholic and at PAWS Chicago. Her aspirations and interests include process simulation and modeling in drug development. We are confident that Pulkita Jain will contribute significantly to the chemical engineering profession as she has demonstrated stellar academic performance and dedication to the profession. After her graduation next month, Pulkita will pursue a Ph.D. in chemical engineering at New York University.

# 2022 Poster Competition Winners

# Graduate Posters First place:

"Quantifying the Hydrodynamic Effect on the Capacitance of Carbon Suspensions"

Logan Fenimore

Northwestern University

# Undergraduate Posters

### First place:

"Plasmonic Copper Nanoparticles for Photocatalytic Dry Methane Reforming: Synthesis, Surface, and Performance"

Javier Cabezas Parra

Northwestern University

### Second place:

"Active fluctuations in a self-healing epithelial mimetic build from biohybrid components"

Andre Gu, Peter Tran, Arthur Prindle, Neha P. Kamat, Jan Steinkühler

Northwestern University

### Third place:

"HDPE Waste In = Diesel Fuel Out"

Renata Swarbrick







# 2022 AIChE Chicago Scholarship Winners

Karim is a ChemE student at UIC and will graduate in 2024, after which he plans to study medicine. Born to a Syrian father and Italian mother, he has lived in Chicago his whole life. He is passionate in discovering the medical applications of all things chemical engineering, and exhibits this through his research in biorheology under Dr. Vivek Sharma. In his free time, Karim enjoys playing the violin, exploring the city, and reading.



Karim Al Zahabi



Thomas Nguyen

I am currently pursuing a Bachelors of Science degree in Chemical Engineering at the University of Illinois at Chicago (UIC) and will be going into my senior year this fall. Some of my hobbies are playing the piano, watching funny videos with my friends, and going to the gym. Some clubs that I am a part of at my university are AICHE, Biomedical Engineering Society (BMES), and Vietnamese Student Association (VSA) to name a few. I am currently doing undergraduate research based on film deposition at UIC in a bioengineering lab. For the near future, I hope to obtain an internship this summer of 2022 related to chemical engineering and an entry level job in the oil/gas industry during my senior year.

#### MAY NEWSLETTER

# **April Meeting Photos**

















**May is Asian/Pacific American Heritage Month** The Library of Congress, National Archives and Records Administration, National Endowment for the Humanities, National Gallery of Art, National Park Service, Smithsonian Institution and United States Holocaust Memorial Museum join in paying tribute to the generations of Asian and Pacific Islanders who have enriched America's history and are instrumental in its future success.

<u>Read More »</u>

### NAE Celebrates Asian American and Pacific Islander Heritage Month

In honor of Asian American and Pacific Islander Heritage Month, the National Academy of Engineering (NAE) has compiled a list recognizing the first 20 Asian American men and women (10 in each category) elected to the organization.

Notable honorees with chemical engineering backgrounds include:



#### Morgan Chuan-Yuan Sze (1916-2015)

NAE election: 1976; citation: "Contributions to the technology of petroleum refining and petrochemical process design and manufacture."



#### Rong-Yu Wan (1932–2009)

NAE election: 2000; citation: "For accomplishments in metallurgical research and industrial practice, and for teaching, supervising, and inspiring students, researchers, and industrial colleagues."



#### Ann L. Lee (1961-)

NAE election: 2007; citation: "For innovation and development of large-scale, cost-effective production of vaccines that have saved lives worldwide."

Read Complete Article on NAE Website »

# GTI's Marker Honored with Don Klass Award at Biomass Conference

GTI Senior Institute Engineer and Bioenergy Initiatives Manager Terry Marker was presented with the prestigious 2022 Don Klass Award for Excellence in Thermochemical Conversion Science on April 20 at tcbiomass2022, held in Denver, Colorado and co-hosted by the U.S. Department of Energy (DOE) National Renewable Energy Laboratory (NREL).

Link: <u>GTI's Terry Marker to be Honored with Prestigious Don</u> Klass Award at upcoming tcbiomass2022 • GTI

# Saadet Ulas Acikgoz from Honeywell UOP Recognized with 2022 F&P Distinguished Service Award



The F&P Distinguished Service Award recognizes an individual's outstanding service to the Fuels and Petrochemicals Division. The candidate must have participated extensively in a variety of division activities demonstrating leadership, and have served the division a minimum of five years. The candidate must be a member of the division and AIChE.

Link: F&P Distinguished Service Award

# 2022 Meeting Schedule and Speakers

Month	Date	Speaker	Affiliation	Торіс
<b>May</b> Thursday, 19 <sup>th</sup>		Edward Maginn	Notre Dame	Understanding Structure and Dynamics of Novel Battery Electrolytes: Water-in-Salt and Deep Eu- tectic Liquids
Monthly meetings will resume in September				



# 2022-2023 Elected Officers

#### Chair: Sarika Goel



Sarika Goel is currently R&D Manager in Catalysis Fundamentals and Applications Group. She is leading the group in the generation of catalysis fundamentals that will enable and accelerate UOP efforts in new growth areas and in core adjacencies that require new or deeper fundamental investigation. Prior to this role, she was Senior R&D Scientist in the Hydroprocessing and Renewables group where she led hydrocracking (HCK) catalysts development and delivered new naphtha HCK catalyst and high-performance HCK catalyst platform. Before that, she worked in Exploratory Research Group where she led

projects to develop breakthrough paraffin cyclization catalysts and Hybrid Reforming Process. Sarika received her Bachelor of Technology degree in Chemical Engineering from the Indian Institute of Technology-Delhi in India in 2009 and her PhD in Chemical Engineering from the University of California at Berkeley in 2015 under the guidance of Prof. Enrique Iglesia and Dr. Stacey Zones (Chevron).

She was awarded the AIChE 35 under 35 award in 2020, IPMI Metalor Technologies Graduate Student Award by International Precious Metals Institute (sponsored by Metalor Technologies) for outstanding work in precious metal research in 2014 and Heinz Heinemann Award for Excellent Graduate Research in Catalysis in 2014. She is a Senior member of AIChE and serves in the programming committee for AIChE Catalysis and Reaction Engineering Division (CRE) and as Communications Director in AIChE Fuels & Petrochemicals division (F&PD). Sarika served as Co-Vice Chair of Programming for the AIChE Chicago Chapter from 2018 to 2020, newsletter editor and webmaster for AIChE F&PD in 2020-2021, fundraising co-chair of NAM26 in 2019, and AIChE Spring meeting programming chair in 2019 and fall chair in 2021 for Women in Chemical Engineering (WIC).

#### Past Chair: Ha Dinh

Ha Dinh is currently Project Development Manager in Naphtha business at Honeywell UOP Process Technologies, where she supports growth in the business by leveraging product technology, new product development, open innovation, voice of customer, current product portfolio, manufacturing assets and equipment engineering capability. Ha joined UOP in 2015 and has worked in Research & Development and Integrated Project Solutions, working on conceptualization and commercialization of new process technologies in refining and petrochemical industry. Ha obtained a BS in Chemical Engineering from the University of Washington



at Seattle in 2008 and her PhD in Chemical Engineering from Lamar University, a member of Texas State University in 2015. She is a Senior member of AIChE and currently serves as Chair of Technology Transfer & Manufacturing Area in AIChE Process Development Division. Ha served as Co-Vice Chair for Meeting Programming for the Chicago Section for 2018-2020 and Section Chair in 2021-2022.

# 2022-2023 Elected Officers

### Director at Large: Robert Tsai (continuing)

Bob Tsai is in the Integrated Project Solutions group at Honeywell UOP and is responsible for development of customer proposals as well as organizational infrastructure with a primary focus on sustainability initiatives. He has been with Honeywell UOP for almost 12 years, previously working in Engineering Innovation as well as Process Design and Modeling roles in R&D, and has been granted over 10 patents during his career. Bob holds a BS in Chemical Engineering from the University of Illinois at Urbana-Champaign and PhD in Chemical Engineering from the University of Texas at Austin. Within AIChE Chicago, he was Co-Chair of Programming from 2016-2018,



Chair and Past Chair from 2018-2020, and served as Chair of the 2021 AIChE Midwest Regional Conference.

#### Director at Large: Jarad Champion (continuing)



Jarad Champion is a licensed chemical engineer at Geosyntec Consultants with 17 years of experience working on hazardous waste cleanup and water resources projects. He has a BS in chemical engineering from University of Illinois at Urbana Champaign and a MS in environmental engineering from Northwestern University. Mr. Champion is a board-certified environmental engineer by the American Academy of Environmental Engineers and Scientists. Mr. Champion has worked on treatment systems and regulatory compliance for remediating groundwater impacted by chemical releases sites across the nation. He has also prepared engineering evaluations for coal ash wastewater and other indus-

trial water systems. Mr. Champion previously served as the Secretary for the AIChE Chicago Section in 2014-2016 and as the Chair in 2019-2020, when he led the Chicago Section Board in transitioning their services during the onset of the COVID pandemic.

# **Proposed Slate for 2022-2023**

### Chair-Elect: McKay Rytting



McKay Rytting recently joined EY-Parthenon as a growth and strategy consultant in their advanced materials and manufacturing practice, working on organic and inorganic growth, go to market, innovation, and operating model projects in chemicals, oil and gas, and new materials. Previously he spent four years at Honeywell UOP in process modeling, design, and development roles in a variety of technologies including FCC, membrane gas separations, heavy oil processing, and petrochemicals. He joined Honeywell after a PhD in chemical engineering at University of Notre Dame where he studied separations and intermolecular interactions of petroporphyrins and asphaltenes found in heavy crude oil. Although his job no longer includes engineering, McKay continues to practice reaction engineering and process control through homebrewing, food smoking, and

pizza making. McKay served as the AIChE Chicago Section treasurer for the previous three years.

#### Director at Large: Janet Werner

Janet Werner is in the Process Design Development group at Honeywell UOP where she supports the development of new technologies. She earned a B.S. in Chemical Engineering from University of Illinois. Janet has served the AIChE Chicago Section in the past as Chair, Newsletter Editor, and Webmaster. Janet has also been involved in the Midwest Regional Conference Committee on the Sponsorship Sub-Committee and the Hospitality Sub-Committee. Janet has also volunteered in the AIChE Chicago Young Professionals Committee on the Programming Committee, Membership Committee, and Webmaster. She received an AIChE Shining Star award in 2015 for her contributions to the Chicago Local Section.



### Vice Chair of Programming: Aida Amini Rankouhi



Aida Amini-Rankouhi is currently Sr. Advanced Application/System Sales Engineer in Integrated Project Solutions group at Honeywell UOP, where she is involved in technical sales support and tool development activities in refining and petrochemical areas. Aida started her career with Honeywell about 3.5 years ago working in the Process Modeling team as R&D Scientist developing kinetic-based process models and Software tools for refinery process units yield estimation. She holds a BS in Chemical Engineering from University of Tehran and PhD in Chemical Engineering from Wayne State University. Aida is a senior member of AIChE and has been involved in the AIChE Sustainable Engineering Forum where she was awarded AIChE SEF Student Best Paper Award in 2018 and has been co-chairing sessions within the forum in the past few

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# **Proposed Slate for 2022-2023**

#### Vice Chair of Programming: Belma Demirel

Belma Demirel holds BS and MS degrees in Chemical Engineering from Ankara University in Turkey and a PhD in Chemical and Fuels Engineering from the University of Utah. She has worked for 14 years in academia and 20 years in oil and gas industry, including positions at Rentech, Praxair and UOP. Belma currently works for bp using her extensive experience in process technology and catalysis to coordinate programs in support of the safety, reliability, and commercial performance of bp assets. In addition to her experience with hydroprocessing and Fisher-Tropsch catalysis, Belma has expertise in Fischer-Tropsch, XTL and refining technologies, process flowsheet modeling, CO2 capture and pilot plant design and operation. She is Six Sigma green belt certified and has



worked as an instructor, as a team leader and managed a team of 10-20 engineers and scientists. Belma has published 28 journal articles, co-authored over 40 US and international patents, and has given numerous presentations at conferences. She is an AIChE Fellow, guest editor of Applied Catalysis A: General and mentors UIC students for their design class.

#### Treasurer: Jeffrey Zalc



and their two daughters.

Jeffrey Zalc is a Principal Engineer in bp Solutions, where he has worked for the past 17 years on refining process modeling and simulation to support unit monitoring, troubleshooting, crude selection, and capital investment decisions. Jeffrey is also an Adjunct Professor in the Department of Chemical and Biological Engineering at the Illinois Institute of Technology, where he has taught undergraduate courses on chemical plant design and chemical process simulation since 2015. Jeffrey has a Ph.D. in Chemical Engineering from Rutgers University and completed his postdoctoral research at the University of California at Berkeley. He is a licensed Professional Engineer in Illinois. Jeffrey has served as Treasurer, Chair, and Past-Chair in the Chicago Section of AIChE. He currently resides in Aurora, IL with his wife, Maura,

**Secretary: OPEN POSITION** 

# Election of Section Officers

### **ABSENTEE BALLOTS**

At the May meeting, AIChE Chicago will be holding the annual election of local section officers. The proposed slate of officers for fiscal year July 1, 2022—June 30, 2023 is included in this newsletter. The slate will be voted upon at the May meeting. At the meeting, there will be one last call for nominations before the vote begins. Absentee ballots will be counted before the meeting. If no other nominations are received, a voice vote will be called for the proposed slate. If additional nominations are received, a vote will be called for each individual position.



Members may send in an absentee ballot to aichechicago@gmail.com

# Volunteers Needed for Chicago Local Section

How many opportunities can you find to learn project management, delegation and leadership skills for free? Volunteering with the Chicago Section of AIChE is such an opportunity. While you're learning new skills, your professional network grows. Just about all of us are either undergoing a career change, contemplating a career change, or are wondering if our career will be changed for us. Volunteering with AIChE is a way to add skills and accomplishments to your resume.

Volunteers are needed to help with:

- Programming arrange speakers for monthly meetings, and arrange catering and venues
- Logistics arrange catering and venues
- Newsletter Editor prepare and publish ten monthly newsletters
- Newsletter Contributions write meeting summaries, contribute photos, and more
- Engineering Outreach coordinate three annual K-12 outreach events with high schools and colleges
- Professional Development and Sponsorship arrange companies to sponsor pre-meeting talks to help fund student dinners
- Awards and Scholarship Committees Review applications for local Section award and scholarships
- Midwest Regional Conference many opportunities including programming, logistics, website, advertising, sponsorship, high school outreach, poster session and more!
- Young Professionals plan socials and programming for young professionals (under 35)

If you are interested in any of these positions, please contact us <u>aichechicago@gmail.com</u>.



# Upcoming AIChE Conferences, Meetings and Webinars

AIChE Conferences		
May 18-19, 2022	<u>4th Solar Energy Systems Conference</u> , Virtual	
May 25, 2022	2022 CCPS China Regional Virtual TSC Meeting, Virtual	
June 1-3, 2022	Advanced Manufacturing and Processing Conference, Hyatt Regency Be- thesda, Bethesda, MD	
June 7-9, 2022	2022 Process Development Symposium, Hilton Philadelphia City Avenue, Philadelphia, PA	
June 19-24, 2022	NAMF Mixing XXVII, Marriott on the Falls, Niagara Falls, Ontario, CAN	
June 26-27, 2022	Diversity and Equity Accelerator through Learning for Startups, Baltimore Marriott Waterfront, Baltimore, MD	
June 27-28, 2022 NDEW-ChE: National Diversity Equity Workshop for Chemical English Academic Leaders, Baltimore Marriott Waterfront, Baltimore, MD		

AIChE Webinars		
May 26, 2022	<u>Free Webinar: RAPID Manufacturing Institute® Presents MCPI (Modular</u> Chemical Process Intensified)	
June 8, 2022	Best Practices in Selecting Pollution Control Equipment, Live Webinar	

#### Connect with members & participate in discussions on Engage!

Check out AIChE's member benefit, AIChE Engage. Use the robust directory search to find and connect with members. Participate in technical, career, and academic discussions about chemical engineering.

Thread Subject	Replies	Last Post	
Improving Soft Skills Through Mentorship article- Aiche/CEP December 2020 CEP	0	<u>9 hours ago</u> by <u>Christopher Semonelli</u>	
PhD Thesis	4	vesterday by Subhasish Original post	E
Pressure setting for manway cover for tank emergency venting	4	Fngay	)
Digtalization in the process industry	F	wrde	
Slow Progress of New-Age Tools in Chemical E		Original post by <u>Kushal Sinha</u>	

# Why Renew Your AIChE Membership?

Renew your membership now to keep learning and growing.

#### Stay Connected to 40,000+ international members who take advantage of:

- Subscription to AIChE's flagship publication: CEP\*
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### **AIChE Volunteer and Meeting Attendee Conduct Guidelines**

AIChE's volunteers are the core of the Institute and make all of its programs, conferences and educational efforts possible. These offerings provide excellent opportunities for AIChE members and meeting attendees to gain greater technical expertise, grow their networks, and enhance their careers. AIChE events provide engineers, scientists, and students a platform to present, discuss, publish and exhibit their discoveries and technical advances.

At all times, volunteers and meeting attendees should act in accordance with AIChE's Code of Ethics, upholding and advancing the integrity, honor and dignity of the chemical engineering profession. AIChE's Board of Directors has developed these guidelines to foster a positive environment of trust, respect, open communications, and ethical behavior. These guidelines apply to meetings, conferences, workshops, courses and other events organized by AIChE or any of its entities and also to volunteers who conduct other business and affairs on behalf of AIChE.

### Specifically

- 1. Volunteers and meeting attendees should understand and support AIChE's Code of Ethics.
- 2. Volunteers and meeting attendees should contribute to a collegial, inclusive, positive and respectful environment for fellow volunteers and attendees, and other stakeholders, including AIChE staff.

3. Volunteers and meeting attendees should avoid making inappropriate statements or taking inappropriate action based on race, gender, age, religion, ethnicity, nationality, sexual orientation, gender expression, gender identity, marital status, political affiliation, presence of disabilities, or educational background. We should show consistent respect for colleagues, regardless of discipline, employment status, and organizations for which they work, whether industry, academia, or government.

Renew Membership

- 4. Disruptive, harassing or other inappropriate statements or behavior toward other volunteers, members, and other stakeholders, including AIChE staff, is unacceptable.
- 5. Volunteers and meeting attendees should obey all applicable laws and regulations of the relevant governmental authorities while volunteering or attending meetings. Volunteers and meeting attendees taking part in any AIChE event, including the ChemECar Competition<sup>TM</sup>, should also comply with all applicable safety guidelines.

Violations of this conduct policy should be reported promptly to the AIChE President or Executive Director.

**Read AIChE's Code of Ethics** 

### AICHE CHICAGO SECTION

AIChE Chicago Section 13964 Doral Lane Homer Glen, IL 60491 <u>aichechicago@gmail.com</u>

https://www.facebook.com/AIChEChicagoSection https://www.linkedin.com/groups/4538581 https://www.aiche.org/community/sites/local-sections/chicago



#### Officers and Contact Information

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### We want you for AIChE-Chicago!

AIChE is committed to promoting a fair, just, and equitable profession and society. AIChE believes that all who wish to be a part of the chemical engineering community should have equal opportunity to pursue and achieve success. We work toward a better future for all —through our technical expertise; through how we inspire, engage, retain, and advance future talent; and through how we treat each other within and beyond the profession.

AIChE Equity, Diversity, and Inclusion Statement | AIChE

# We need your help!

How many opportunities can you find to learn project management, delegation and leadership skills for free? Becoming an officer in the Chicago Section of AIChE is such an opportunity. While you're learning new skills, your local network grows. Just about all of us are either undergoing a career change, contemplating a career change, or are wondering if our career will be changed for us. Volunteering with AIChE is a way to add skills and accomplishments to your resume.

aichechicago@gmail.com

http://www.aiche.org/community/sites/localsections/chicago/announcements/volunteerism



# **Submitting Articles to AIChE Columns**

We welcome email submissions for our monthly newsletter. Commercial announcements are subject to the fee schedule below. News stories, editorials, technical or career related non-commercial contributions are always welcome with no charge. We consider job postings, announcements of for-fee training courses, expositions, conferences as commercial. Categorization of announcements is at the sole discretion of the Chicago AIChE Board of Directors. Chicago AIChE may publicize activities of interest to our members by cooperating professional societies and other non-profits without charge.

Please submit your material to <u>aichechicago@gmail.com</u> with "newsletter article" as a subject line.

