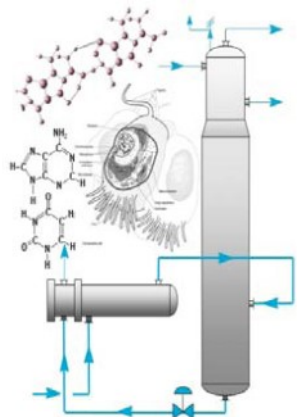


# AIChE Chicago Section

## April 2022 Newsletter



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## April 2022 Local Section Meeting & Annual Poster Competition

***“Zeolite Structure/Property Relationships for Catalysis and the Building of a Business Strategy from your Science”***



***Christopher P. Nicholas***  
***C2P Sciences L3C***

**Date:** ***Thursday, April 21st, 2022***

**Location:** ***Northwestern University,  
Technological Institute (Room M345)***

2145 Sheridan Rd, Evanston, IL 60208

Parking information: [Link](#)

**Cost:** **Members: \$40**  
**Students: \$10**

**Non-Members: \$50**  
**Unemployed/Retired: \$15**

Click on the link to register! <https://cvent.me/9Vx1mk>

### **Agenda:**

**Thursday April 21st, 2022**

5:00 to 5:30 PM Poster setup

5:30 to 6:30 PM Poster session, registration and social hour (Willens Atrium)

6:30 to 7:30 PM Dinner (Room M345)

7:30 to 7:45 PM Section Announcements & McCormack Awards

7:45 to 8:45 PM Technical Presentation (Christopher P. Nicholas of C2P Sciences)

8:45 to 9:00 PM Presentation of Poster Awards

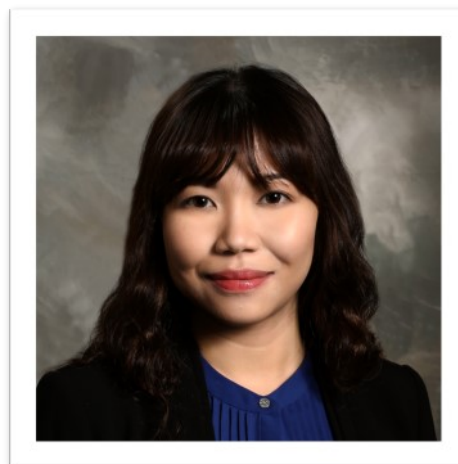
## Chair's Corner

Happy Spring to all our members!

This newsletter brings many exciting news to you. Firstly, Midwest Regional Conference 2022 was a great success, thanks to the organizing committee, volunteers, presenters, and conference attendees. As every year tradition goes, you will be hearing from us about MRC 2023 very soon!

In addition, we are hosting the first in-person monthly meeting since February 27, 2020 on Thursday, April 21 at Northwestern University. Although the virtual meetings have been successful and engaging, I am sure a lot of us, myself included, have missed seeing each other and catching up after more than two years. The April Monthly Meeting also features our annual Student Poster Competition. Our AIChE Chicago Local Section believes it is important to encourage and support the undergraduate and graduate student community, and hope to see you at the event to give our students feedback on their work and help get them excited about chemical engineering.

We are also working on nominating volunteers to serve on the Chicago Section's Board of Directors for the next programming year. AIChE Chicago Section members may nominate one candidate for each open officer and director position. Nomination deadline is April 22. Please find in-



structions on how to submit a nomination in this newsletter.

Last but not least, we will be announcing multiple award winners for this year very soon. The Harry McCormack Outstanding Senior Award will be presented to one student from each of the Chicago-area universities to acknowledge excellence in study, research, and extra-curricular activities. Further, the prestigious Ernest W. Thiele Award sponsored by bp will be given to a Midwest member of AIChE who has made an outstanding contribution to the practice of chemical engineering.

I'm looking forward to meeting our members at April meeting. Take care and stay healthy.

Ha Dinh

AIChE Chicago Section Chair

AIChE Senior Member

## ***Darlene Schuster Announced as New AIChE CEO and Executive Director***

The Board of Directors of AIChE®, the Global Home of Chemical Engineers, is pleased to announce that Darlene S. Schuster, PhD, AIChE's current Chief of Technical Operations, Membership, and Business Development, has been appointed as the new Chief Executive Officer and Executive Director of the Institute. An experienced business leader, Dr. Schuster will become CEO and Executive Director effective April 25. She will succeed June C. Wispelwey, who is retiring on April 22.

## ***April Meeting McCormack Awards***

Every year AIChE-Chicago recognizes academic excellence at our three Chicago Section schools: IIT, Northwestern, and UIC. A student poster session competition/judging precedes dinner. Following the evening's guest speaker, the section will present the Harry McCormack award to the top students from each of our schools along with the poster session awards.

## April Meeting Speaker Information

### Zeolite Structure/Property Relationships for Catalysis and the Building of a Business Strategy from your Science

#### Speaker's Bio:

Chris is the Principal of C2P Sciences L3C, a small business for the advancement of science in the areas of chemistry and catalytic processes and the Co-Founder and President of Läkriil Technologies, the startup he created in mid-2021 to commercialize a catalytic process for bio-based acrylic production. Prior to founding a business based on sustainable catalysis, he worked 15 years at Honeywell UOP in technical and managerial roles primarily focused on inventing and catalytically testing new materials and processes. Particular foci have included heterogeneous catalytic processes such as olefin oligomerization and alkylation, synthesis of inorganic materials (primarily metal oxides and zeolites), process engineering, molecular adsorption, and olefin metathesis. For this work, Chris was awarded the 2020 Herman Pines Award in Catalysis.



Chris earned his Bachelor of Arts from Kalamazoo College and a PhD in 2006 at Northwestern University. Chris is a 25-year ACS Member and an AIChE Senior member who is an inventor on more than 115 US and foreign patents and coauthor of 30+ peer-reviewed journal articles and a book chapter. Along with responsibilities as a member of the Editorial Advisory Boards of *ACS Catalysis* and *Industrial & Engineering Chemistry Research*, he has been involved with the Chicago Catalysis Club since graduate student days and has served as Director, Program Chair and President.

#### Abstract:

Acidic solids including zeolites are the base for many catalytic applications in today's world. Zeolites are aluminosilicate solids with well-defined crystallographic connectivity possessing permanent microporosity and used at scale, including for production of almost all gasoline. During the talk, I will discuss several zeolitic solids where we have exploited the unique structural features to enable novel selectivity patterns during catalysis. Among the materials, I will discuss the synthesis, structure solution, and catalytic properties of UZM-55. UZM-55 has a 1-dimensional pore containing both 10-membered and 12-membered delimiting rings, the first time this structure motif has been observed. We studied the catalytic properties of this material in methanol to olefins to understand how ring size affects reaction mechanism.

A second topic will be description of our recent work utilizing inorganic/organic composite Na-FAU based zeolite catalysts. Acrylic acid and the four primary acrylate derivatives are the cornerstone of a \$10B market with broad application across super-absorbent polymers, paints, coatings, and adhesives industries. We focus on the conversion of feeds derived from lactic acid, a product sustainably fermented from a range of bio-derived sugar sources. Here, we use amines as inert and site-selective chemical titrants to suppress side reactions on in situ-generated Brønsted acid sites (BASs) during dehydration of lactates to methyl acrylate and acrylic acid.

Finally, I'll finish with a business focused discussion. Many of us have had the thought during difficult times that we'd love to be our own boss. But what does that really entail and is it for you? Among the keys to converting scientific potential into a growing chemical business is developing and then meshing the overall business strategy with the necessary R&D strategy to form a minimum viable product. I'll discuss what this means and how can you apply these strategies to your day-to-day work.

Registration: <https://cvent.me/9Vx1mk>

Parking: <https://www.northwestern.edu/transportation-parking/evanston-parking/index.html>



## **AIChE Chicago Section Poster Competition**

Thursday April 21, 2022

5:30 PM – 6:30 PM

Northwestern University Technological Institute, Evanston, IL

Willens Atrium

Submission by Tuesday April 12, 2022

Submit title and abstract (500 words maximum) to

Belma Demirel - [Belma.Demirel@bp.com](mailto:Belma.Demirel@bp.com)

David Hietala - [dhietala@exponent.com](mailto:dhietala@exponent.com)

**Prizes:** Gift cards to the top undergraduate and graduate students

**More Information:** Posters on any topic related to chemical engineering are welcome, including research and senior design projects. The competition will be judged by chemical engineers using the AIChE National Student Poster Session judging criteria based on quality of poster, presentation, delivery, and importance/relevance of project.

**Questions?** Contact Belma Demirel and David Hietala

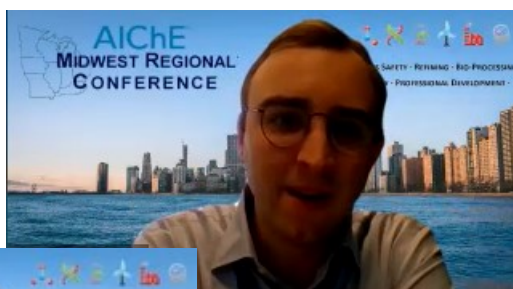
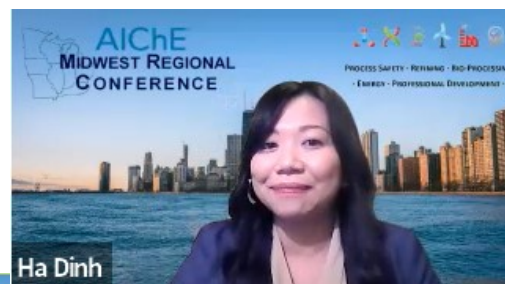
[Belma.Demirel@bp.com](mailto:Belma.Demirel@bp.com); [dhietala@exponent.com](mailto:dhietala@exponent.com)

### ***Poster Judges Needed!***

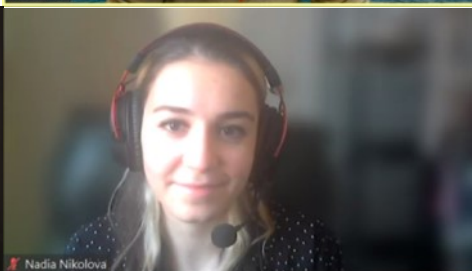
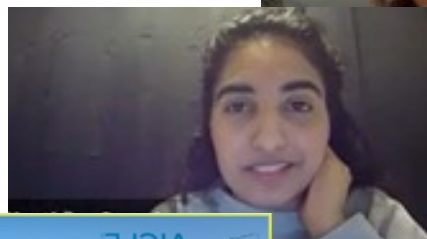
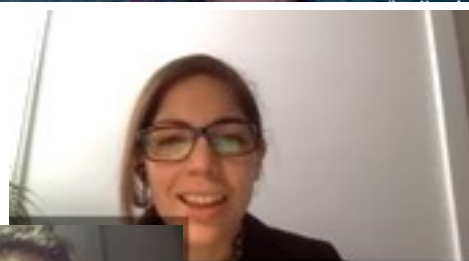
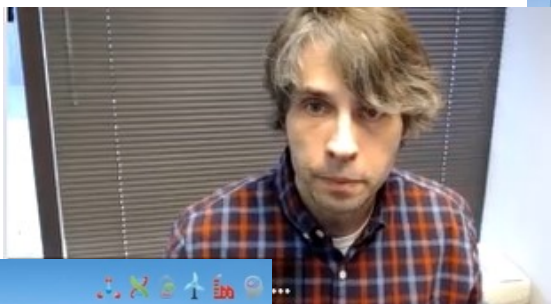
Judges are needed for the student poster competition that will be held at the **April 21** local section meeting. Posters will be judged on quality and organization, the student's delivery and ability to answer questions, and the importance/relevance of the project. Please email [aichechicago@gmail.com](mailto:aichechicago@gmail.com) if you would be willing to assist.



# Midwest Regional Conference 2022: In Pictures



# Thanks to all individuals who contributed to the 2022 MRC!!



Watch your inbox for MRC 2023 information



## 2022 Meeting Schedule and Speakers

Month	Date	Speaker	Affiliation	Topic
<b>April</b>	Thursday, 21 <sup>st</sup>	Christopher P. Nicholas	C2P Sciences L3C	Zeolite Structure/Property Relationships for Catalysis and the Building of a Business Strategy from your Science
<b>May</b>	Thursday, 19 <sup>th</sup>	Edward Maginn	Notre Dame	

## Upcoming AIChE Conferences, Meetings and Webinars

### AIChE Conferences

Apr 10-14, 2022	<a href="#">2022 Spring Meeting and 18th Global Congress on Process Safety</a> , Henry B. González Convention Center, Hyatt Riverwalk, San Antonio, TX
Apr 19-21, 2022	<a href="#">tcbiomass 2022</a> , Marriott Brown Palace Hotel and Spa, Denver, CO
Apr 20-21, 2022	<a href="#">eChemExpo</a> , Meadowview Marriott Convention Center, Kingsport, TN
May 2-5, 2022	<a href="#">Synthetic Biology: Engineering, Evolution &amp; Design (SEED)</a> , Crystal Gateway Marriott, Arlington, VA
May 2-5, 2022	<a href="#">2022 Offshore Technology Conference</a> , NRG Park, Houston, TX

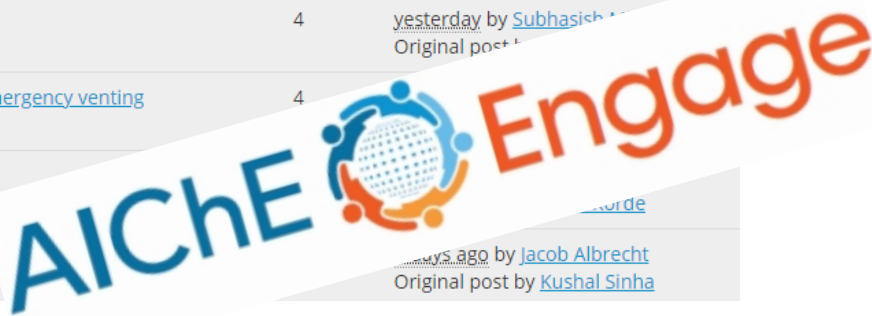
### AIChE Webinars

Apr 6, 2022	<a href="#">Proactive Process Safety and Prevention of Catastrophic Incidents</a>
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## [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
<a href="#">Improving Soft Skills Through Mentorship article- Aiche/CEP December 2020 CEP</a>	0	9 hours ago by <a href="#">Christopher Semonelli</a>
<a href="#">PhD Thesis</a>	4	yesterday by <a href="#">Subhasish</a> Original post by <a href="#">Subhasish</a>
<a href="#">Pressure setting for manway cover for tank emergency venting</a>	4	
<a href="#">Digitalization in the process industry</a>		
<a href="#">Slow Progress of New-Age Tools in Chemical E</a>		days ago by <a href="#">Jacob Albrecht</a> Original post by <a href="#">Kushal Sinha</a>



## NOMINATIONS FOR 2022-23 AIChE CHICAGO SECTION OFFICERS

Members may nominate only one candidate for each office (Chair-Elect, Vice-Chair Program, Treasurer, Secretary) and one Director-at-Large for 2022-23 Fiscal year.

Please submit nominations via email to:

Ha Dinh ([ha.dinh@honeywell.com](mailto:ha.dinh@honeywell.com)) or

Sarika Goel ([sarika.goel@honeywell.com](mailto:sarika.goel@honeywell.com))

The nomination deadline is **April 22**.



***Extended***

### ***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 [aichechicago@gmail.com](mailto:aichechicago@gmail.com).



## [Why Renew Your AIChE Membership?](#)

Renew 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\*
- Education—Access to e-learning courses and instructor-led training, offering Continuing Education Units and PDHs
- Access to CareerEngineer—a comprehensive job site tailored to chemical engineers
- Access to the AIChE eLibrary—a wealth of information from Knovel Life Sciences and the McGraw-Hill AccessEngineering Library collections

[View COMPLETE benefits](#)

## 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.
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™, 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**  
[aichechicago@gmail.com](mailto:aichechicago@gmail.com)

<https://www.facebook.com/AICHeChicagoSection>

<https://www.linkedin.com/groups/4538581>

<https://www.aiche.org/community/sites/local-sections/chicago>

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### Officers and Contact Information

Chair	<i>Ha Dinh</i>
Chair Elect	<i>Sarika Goel</i>
Past-Chair	<i>Jeffrey Zalc</i>
Programming	<i>Belma Demirel</i>
	<i>David Hietala</i>
Social Media	<i>Sanaz Taghvaii</i>
Treasurer	<i>McKay Rytting</i>
Directors at Large	<i>Jarad Champion</i>
	<i>Pat Shannon</i>
	<i>Robert Tsai</i>
House Committee	<i>Lance Baird</i>
	<i>Seetha Manickam</i>
	<i>Kashif Uddin</i>
Newsletter Editors	<i>Yechan Won</i>
	<i>Robert Tsai</i>

## 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](mailto:aichechicago@gmail.com)

<http://www.aiche.org/community/sites/local-sections/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 [aichechicago@gmail.com](mailto:aichechicago@gmail.com) with "newsletter article" as a subject line.

