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Words from the Division Chair

The Separations Division has provided knowledge and networking opportunities for AIChE members in the areas of separation science and technology since 1990. It is one of the biggest AIChE Divisions with more than 500 members and a large programming at the Annual Meeting. The primary objective of the Division continues to be the development of technical programming for the AIChE Spring and Annual meetings, covering a variety of used and novel separation processes and materials developments in 8 major separation areas. At the Spring 2019 Meeting in New Orleans, the Division sponsored or co-sponsored 10 oral presentation sessions associated with a Topical Distillation Symposium. At the Fall 2019 Annual Meeting in Orlando, the Division sponsored 59 oral presentation sessions, 4 Poster Sessions and 11 co-sponsored sessions with other Divisions. The programming efforts have been coordinated by the Division Chair along with our eight Area Chairs: Marcus Mello (Area 2), Andrew Sloley (Area 2A), Seth Huggins (Area 2B), George Goff (Area 2C), Haiqing Li (Area 2D), Stefano Brandani (Area 2E), Seyi Oduyungbo (Area 2F), Nick Merchant (Area 2G) and Josh Thompson (Area 2H). I would like to thank each of the Area Chairs for their service and efforts to develop a strong programming for our Division and AIChE members in 2019.



In addition to the regular oral presentation sessions, the Division hosted 4 poster sessions and we had our poster competition reinstated thanks to the initiative and coordination of our 1st Vice-Chair Ranil Wickramasinghe with the help of graduate students. I would like to thank Ranil and the graduate students for taking on this important task of recognizing outstanding posters.

Another important objective of the Division is to recognize achievements of members through awards. Awards presented at the Orlando meeting included:

- *Clarence Gerhold Award*, sponsored by UOP, for outstanding contributions to research, development, or application of separations technology: Yoram Cohen
- *Innovation Award*, for outstanding contributions to scientific, technological, or industrial areas involving separations technologies: Richard Braatz
- *FRI/John G. Kunesh Award*, sponsored by Fractionation Research, Inc., for outstanding contributions by an individual under the age of 40: Willian Phillip
- *Graduate Student Research Awards*, sponsored in part by the Division and Chevron: Raj Manivannan and Pranav Madabhushi (Area 2A); Yao Ma, Junyi Liu and Ratul Chowdhury (Area 2D).

(Words from the Division Chair continued...)

I would like to thank everyone involved in the nomination and selection of these awards. Special thanks to our 2nd Vice-Chair Anand Vennavelli, who did an excellent job taking the lead in coordinating these awards. Anand did also a great job with the arrangements of our Awards dinner at the Maggiano's restaurant.

On behalf of our Division, I would like to offer a very special recognition to Neil Yeoman, who stepped down in 2019 as our Division Treasurer, after serving for over 20 years. Thanks to Neil's long-term commitment and hard work to our division, we have enjoyed a very healthy financial position for many years up until now. Many thanks are also due to Atanas Serbezov, our Secretary, for his long-term service that maintains continuity and memory for the Division. I have been lucky to have been preceded by Roger Whitley, who as Past Chair provided invaluable support during my term as Chair. I also thank the other Executive Committee members, 1st Vice Chair Ranil, 2nd Vice Chair Anand, and our ten Directors for working together with me in advancing important topics and maintaining the existing ones within the Division. I would like to thank outgoing Directors Chris Burcham and Megan Donaldson for their service to the Division.

In 2019, we started a new initiative in the Division with the objective of improving communication with members. I would like to thank our Director Paul Scovazzo for taking on the coordination of the Engage platform within our Division. Engage has the mission of connecting AIChE members with each other and their Chemical Engineering communities. Engage is being rolled out in stages to all divisions under the leadership of AIChE National. The Division also voted on a new logo based on options provided by AIChE national. In addition, we have continued to support AIChE's Young Professionals (YP) community and we contributed to their vibrant mixer in New Orleans. Through networking in the mixer, I was able to recruit a YP volunteer, Rasika Nimkar, to help Paul with the Engage platform. Thank you, Rasika for your support.

As we look forward to another successful year for the Division, we welcome our newly elected officers for 2020: Our 2020 Chair, Ranil Wickramasinghe, our 1st Vice-Chair, Anand Vennavelli, our 2nd Vice-Chair, Alice He, our Treasurer, Tarun Poddar, Atanas Serbezov, reelected for another term as Secretary, and our new Directors, Stefano Brandani, Stephen Thiel and Dan Summers (filling in for the last year of Director Alice He, who has been elected 2nd Vice-Chair in 2020). Dan will also assist Director Haiqing Li with the Division Awards. Please join me in congratulating and welcoming them to their new roles in the Division.

It has been an honor to serve as Chair of the Separations Division in 2019. I have enjoyed my time and have built many new professional relationships and friendships while serving as Director and in the Division's leadership leading up to becoming Chair. Please consider engaging with our Division through Engage, our LinkedIn group or our website to connect with other members and to follow our Division's activities. If you are looking for greater involvement in the Division, additional opportunities include service as an Area Chair, Director or chairing technical sessions. Don't hesitate to reach out if you would like to contribute to the Division.

Finally, please join me in wishing Ranil Wickramasinghe all the best as the Division Chair for 2020.

Sincerely,

Marcus Mello

Separations Division Chair, 2019



Dear AIChE Separations Division Members,

We are happy to announce that the Separations Division has launched an online engagement, information sharing, and networking platform within the AIChE Engage Community. This platform is a private online community exclusively for Separations Division members. Each Separations Division member was automatically added as a member of this new platform.

The major goal of this platform is to increase engagement of members by stimulating discussion around chemical separation principles, practices, career and professional topics. In addition, through this forum, Separations Division members and leaders can ask questions, seek advice, or provide suggestions on issues that relate to the Separations Division. One important benefit of this platform is timely and easy information sharing of Separations Division activities plus useful information by members for the benefit of others. Additionally, we have been exploring ways to enhance networking between Separations Division members, and we see this platform as an avenue to help us get to know, connect with and assist each other as global members of the Chemical Engineering family.

Though there may be different discussions going on in this community in a given day, you will only receive one email digest each morning summarizing the discussions from the previous day. However, you can always visit the Separations Engage community to follow up on ongoing discussions at any time of the day. This email digest will be separate from the Discussion Central daily digest. To ensure you receive the digest email, *stay connected by white listing the email address Mail@ConnectedCommunity.org. You can find more information on how to white list this address [here](#).*

There are some rules regarding how we should conduct ourselves when using the private Engage Community. We recommend that you read through the [Engage Code of Conduct](#) and familiarize yourself with the platform through the [Engage Quick Start Guide](#).

These are exciting times for the Separations Division! It is our expectation that this new platform will dramatically increase the networking, engagement level, speed and effectiveness of information sharing within our division. We look forward to connecting and discussing with you on, Separations Engage Community.

Regards,

AIChE Separations Division Leadership

Separations Division Awards

2019 Clarence Gerhold Award



Yoram Cohen

This award, sponsored by UOP, LLC (A Honeywell Company), recognizes an individual's outstanding contribution in research, development, or in the application of chemical separations technology.

The AIChE Separations Division is pleased to announce Dr. Yoram Cohen as the recipient of the 2019 Clarence G. Gerhold Award for Outstanding contributions to the fundamentals and technologies of self-adaptive and energy-optimal membrane-based water desalination, membrane fouling monitoring, and high-performance RO membranes.

Dr. Yoram Cohen received his B.A.Sc. (1975) and M.A.Sc. (1977) in Chemical Engineering, from the University of Toronto, and Ph.D. (1981) from the University of Delaware. He is a Distinguished Professor of Chemical and Biomolecular Engineering at the University of California, Los Angeles (UCLA) where he has been a member of the Faculty since 1981. He is on the Faculty of the Institute of the Environmental and Sustainability, a Faculty Affiliate of the California NanoSystems Institute, UCLA Luskin Scholar at the Center for Innovations (School of Public Affairs), Associate Faculty with the UCLA Center for Occupational and Environmental Health, and he is Adjunct Professor at Ben-Gurion University (Department of Desalination & Water Treatment, Zuckerberg Institute for Water Research). He was a Visiting Professor at the Technion (1987-1988) at Universitat Rovira i Virgili (Spain 1994), and a Distinguished Visiting Professor at Victoria University (Australia 2006). Dr Cohen is a recognized expert and technology innovator in water treatment and desalination, membrane separations, environmental impact assessment, toxicity modeling, machine learning and nanoinformatics. His research contributed to the development and deployment of advanced flexible, self-adaptive and energy optimal water desalination systems, new membranes and monitoring of membrane fouling, mineral scaling and membrane integrity. His contributed to environmental protection efforts to promote water reuse, develop clean drinking water supplies for disadvantaged communities, and reduce risks from exposure to chemical contaminants. In 2003 he received the Lawrence K. Cecil award in Environmental Chemical Engineering from the AIChE Environmental Division and was elected AIChE Fellow in 2009. In 2008 he received the Ann C. Rosenfield Community Partnership Prize (2008), a California Senate Certificate of Recognition, and a Certificate of Special Congressional Recognition (US) for contributing to legislation to protect public health and dedicated service to the community. He is a founder and Director (2005-present) of the UCLA Water Technology Research (WaTeR) Center, co-founded and served as Director (1987-1992) of the UCLA/EPA National Center for Intermedia Transport Research and was co-founder and Director (1995-2008) of the Center for Environmental Risk Reduction. He is also co-founding member of the UCLA/NSF Center for the Environmental Implications of Nanotechnology which received the 2012 California Governor's Award in Green Chemistry.



Clarence Gerhold

A Pioneer in Chemical Processes

Clarence "Larry" Gerhold was one of the nation's outstanding innovators in conceiving and implementing new processes in the petroleum, refining, and petrochemical industries. His 78 patents witness to this accolade. From 1929, when he conceived of thermal reforming, to the SORBEX adsorptive separation method, he always explored the unconventional possibilities instead of simply following evolutionary paths.

Clearly, he was one of Universal Oil Products' most prolific people. He had an early vision of modern petroleum processing and worked to promote this vision. Importantly, he had the determination to push through developments which were given little hope for commercial acceptance.

An important example of his accomplishments: the Platforming process. There was general skepticism when platinum-promoted catalysts were suggested by UOP's Vladimir Haensel in 1947. Larry took a different approach. He analyzed the possible problems and persuaded the researchers to develop viable solutions. He convinced management of the need for rapid commercialization of the process. He worked with all the process development and design functions to move forward. His efforts were instrumental in a commercially-successful operation within 2.5 years of the first laboratory experiment!

Larry championed many UOP processes: thermal reforming, catalytic polymerization, dehydrogenation, and the UDEX extraction and SORBEX adsorption processes. His solutions overcame obstacles to commercial realization, and his vision and persistence resulted in new directions for these developing industries.

Gerhold Award Recipients

1992 – C.J. King
 1993 – A.D. Randolph
 1994 – J.R. Fair
 1995 – G.E. Keller
 1996 – R.W. Rousseau
 1997 – R.T. Yang
 1998 – M. Larson
 1999 – W.J. Koros
 2000 – G. Belfort
 2001 – R. Agrawal
 2002 – N.N. Li
 2003 – H.Z. Kister
 2004 – M.F. Doherty
 2005 – C. Eckert
 2006 – E.L. Cussler
 2007 – W.S. Ho
 2008 – K.K. Sirkar
 2009 – D. Bhattacharyya
 2010 – N. Yeoman
 2011 – R.D. Noble
 2012 – S. Kulprathipanja
 2013 – B.D. Freeman
 2014 – T.C. Frank
 2015 – A.S. Myerson
 2016 – D.R. Summers
 2017 – A.L. Zydney
 2018 – U. M. Diwekar
 2019 – Y. Cohen

2019 Separations Division Innovation Award



Richard Braatz

This award recognizes outstanding contributions to scientific, technological, or industrial areas involving separations technologies. Criteria considered in selecting an awardee include development and implementation of significant discoveries, creative research, or new processes and/or products. The innovation should have demonstrated significant and measurable commercial, environmental, or societal value.

This year, the AIChE Separations Division is pleased to recognize Richard Braatz for the development and implementation of semi-automated technologies for the robust and reliable production of pharmaceutical crystals of desired polymorphic/solvatomorphic form.

Richard D. Braatz is the Edwin R. Gilliland Professor of Chemical Engineering at the Massachusetts Institute of Technology (MIT) where his research is primarily in the modeling, design, and control of chemical and pharmaceutical manufacturing processes.

He received a BS with Honors from Oregon State University and an MS and PhD from the California Institute of Technology. He was a visiting research scholar at DuPont for a year and then on the faculty at the University of Illinois at Urbana-Champaign for fifteen years and a Visiting Scholar at Harvard University for a year before moving to MIT.

Most of his research in the last twenty-five years has been in particulate processing, particularly in the crystallization of pharmaceuticals and other compounds.

In recent years, much of his research has been in fully automated end-to-end continuous (bio)pharmaceutical manufacturing systems that include multiple unit operations involving chemical and/or biological reactors, crystallizers, membranes, and/or chromatography.

He has consulted and/or collaborated with more than thirty companies including Novartis, Amgen, Biogen, Takeda, Abbott Laboratories, Bristol Myers-Squibb, and Sanofi-Pasteur.

His research has been recognized by the Curtis W. McGraw Research Award from the Engineering Research Council, the Research Collaboration Award from the Council for Chemical Research, the Donald P. Eckman Award from the American Automatic Control Council, the Technical Innovation Award from the International Society of Automation, and the IEEE Control Systems Society Transition to Practice Award.

He is a Fellow of the American Institute of Chemical Engineers, the American Association for the Advancement of Science, the International Federation of Automatic Control, and the Institute of Electrical and Electronics Engineers, and a member of the U.S. National Academy of Engineering.

2019 FRI/John G. Kunesh Award



William A. Phillip

This award, sponsored by Fractionation Research, Inc., FRI, recognizes outstanding contributions to the academic, scientific, technological, industrial, or service areas involving separations technologies for individuals under the age of 40.

This year, the AIChE Separations Division is pleased to recognize Dr. William Phillip for the development of separation membranes based on advanced self-assembled copolymers with tailored chemical functionality and nanostructures.

William A Phillip received his B.S. in Chemical Engineering from the University of Notre Dame in 2004 and completed his Ph.D. in Chemical Engineering under the guidance of Dr. Ed Cussler at the University of Minnesota in 2009. Following his Ph.D., Dr. Phillip completed a postdoctoral appointment with Dr. Menachem Elimelech at Yale University. He is currently an Associate Professor in the Department of Chemical and Biomolecular Engineering at the University of Notre Dame,

where he heads the Water purification and Advanced Transport Engineering Research (WATER) laboratory. Dr. Phillip is a member of the Editorial Advisory Board for *ACS Applied Polymer Materials*.

The WATER lab examines how the structure and chemistry of polymeric membranes affect the transport of solutes and solvents across them. By understanding the connection between functionality and property, Professor Phillip and his group are able to design and fabricate next-generation membranes that provide more precise control over the transport of chemical species. These material advantages are then leveraged to design systems capable of enhancing chemical separations at the water-energy nexus. Among others, the WATER lab has been recognized with the 3M Non-Tenured Faculty Award, the North American Membrane Society Young Membrane Scientist Award, the DuPont Young Professor Award, and the Duncan and Suzanne Mellichamp Lectureship at Purdue University.



John G. Kunesh

A Mentor to Chemical Engineers

Dr. John G. Kunesh mentored and supervised many young chemical engineers. The majority of those engineers are still contributing globally in the Separations field.

John received BS, MS and PhD degrees from Carnegie Mellon University, the latter in 1971. His first industry position was with UOP, in Des Plaines, Illinois where he soon became the Manager of Design Engineering in the Process Division. He managed twenty engineers. For six years, he led UOP's Training Group for New Design Engineers. He also led UOP's Design Engineering Course for Client Personnel.

In 1976, John left UOP for Hydrocarbon Research, Inc., in New Jersey, where he soon became their Vice President of Process Design. Among his achievements there was the management of the engineers of a coal liquefaction plant.

In 1984, John joined Fractionation Research, Inc., FRI, as their Technical Director, a position which he held for 18 years. John and his FRI group contributed appreciably to global distillation. FRI testing included: high-capacity trays, packing distributors, structured packing, high-capacity structured packing and high-performance random packing. FRI's Design Rating Program was initially authored during John's reign.

John was an AIChE Separations Division Director for 6 years, and its Chairman in 2004. Anybody who knew or worked for John enjoyed, respected, and learned from him.

The Separations world benefitted appreciably from John's time in it. Very unfortunately, John is no longer available to mentor those engineers.

Kunesh Award Recipients

2010 – S.M. Husson
 2010 – N.F. Urbanski
 2011 – I.C. Escobar
 2012 – S. Nair
 2013 – M.A. Carreon
 2014 – J.R. McCutcheon
 2015 – J.E. Bara
 2016 – K.S. Walton
 2017 – Jeffrey D. Rimer
 2018 – Ryan P. Lively
 2019 – William A. Phillip

Highlights from the 2019 AIChE Annual Meeting

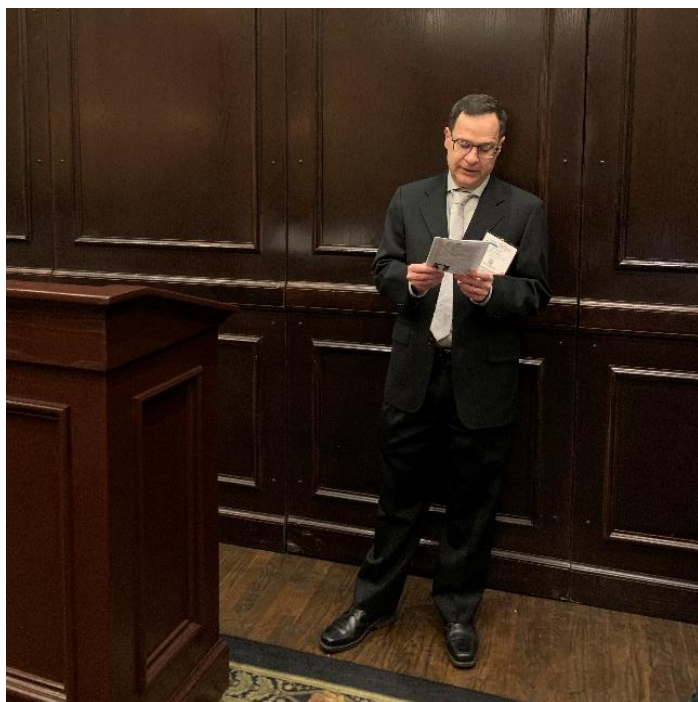


The 2019 AIChE Annual Meeting was held November 10-15, 2019 in Orlando, FL.

The Separations Division sponsored 59 oral presentation sessions, 4 Poster Sessions and 11 co-sponsored sessions with other Divisions.

The Annual Separations Division Awards Dinner was held on Monday, November 11, 2019 at Maggiano’s Little Italy Restaurant in Orlando. The event is always greatly anticipated and serves as an excellent opportunity to honor members of the Division for their service and to recognize outstanding individuals for their contributions to scientific, technological, or industrial areas involving separations technologies. Marcus Mello, 2019 Chair of the Separations Division, presided over the evening’s activities. Special thanks to Anand Vennavelli, 2nd Vice-Chair of the Division, who made the banquet arrangements and also lead the efforts in coordinating the awards.

Some scenes from the Annual Separations Division Awards Dinner are presented in the next pages.



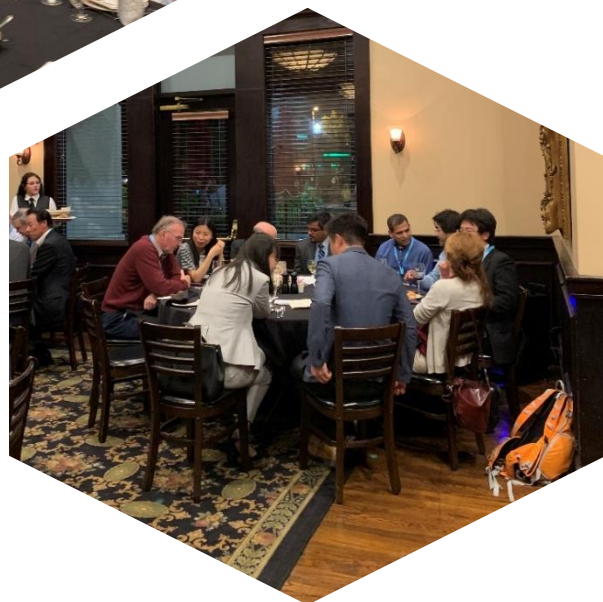
Left photo: Marcus Mello, 2019 Chair of the Separations Division, presided over the evening’s activities.

Right photo: Marcus thanked Anand Vennavelli (pictured on the left) for his efforts in coordinating the awards and making the dinner arrangements.




19 AIChE
Annual Meeting, Orlando, FL


SEP
Separations Division
An AIChE Community



Scenes from the Annual Separations Division Awards Dinner.
Thank you, Anand, from all of us for a wonderful evening!



Left photo: The Innovation Award was presented to Richard Braatz (right) by the Division Chair, Marcus Mello (left). Dr. Richard Braatz, Edwin R. Gilliland Professor of Chemical Engineering at MIT, was recognized for the development and implementation of semi-automated technologies for the robust and reliable production of pharmaceutical crystals of desired polymorphic/solvatomorphic form (for more information on the award and Dr. Braatz, see pages 5-6).

Right photo: The Division Chair, Marcus Mello (left) presented Willian Phillip (right) with the 2019 FRI/John G. Kunesh Award, sponsored by Fractionation Research, Inc. (FRI). Dr. Willian Phillip, Associate Professor in the Department of Chemical and Biomolecular Engineering at the University of Notre Dame, was recognized for the development of separation membranes based on advanced self-assembled copolymers with tailored chemical functionality and nanostructures (for more information, see pages 6-7).



The 2019 Clarence G. Gerhold Award, sponsored by UOP, LLC (A Honeywell Company), was presented to Yoram Cohen (right) by the Division Chair, Marcus Mello (left). Dr. Yoram Cohen, Distinguished Professor of Chemical and Biomolecular Engineering at the University of California, Los Angeles (UCLA) was recognized for his outstanding contributions to the fundamentals and technologies of self-adaptive and energy-optimal membrane-based water desalination, membrane fouling monitoring, and high-performance RO membranes (for more information on the award and Dr. Cohen, see pages 4-5).



Left photo: Seth Huggins (right), outgoing Chair of Area 2B, Crystallization & Evaporation, was recognized for his service by the Division Chair, Marcus Mello (left).

Right photo: Haiqing Lin (right), outgoing Chair of Area 2D, Membrane-Based Separations, was recognized for his service by Marcus Mello (left).



Left photo: Seyi Oduyungbo (right), outgoing Chair of Area 2F, Fluid-Particle Separations, was recognized for his service by the Division Chair, Marcus Mello (left).

Right photo: Nick Merchant (right), outgoing Chair of Area 2G, Bioprocess, was recognized for his service by Marcus Mello (left).



Outgoing Division Directors, Chris Burcham (pictured above on the left photo) and Megan Donaldson (pictured above on the right photo) were recognized for their service to the Division by Marcus Mello.



Left photo: Anand Vennavelli (left) thanked, Marcus Mello (right) for his service as the 2019 Chair of the Separations Division.

Right photo: Marcus Mello (right) was presented with a plaque by Roger D. Whitley (left), Past Chair of the Separations Division.

2019 Graduate Student Research Awards

In an effort to encourage graduate students to excel, to promote a high level of interest in the field of separations, to identify future leaders in the field, and to strengthen the cooperation between academia and industry in the separations field, the Separations Division of AIChE has established a Graduate Student Research Award program.

Graduate Student Research Awards recognize outstanding work by graduate students in one of the Separations Division Program Areas: Distillation & Absorption (Area 2A), Crystallization & Evaporation (Area 2B), Extraction (Area 2C), Membrane-Based Separations (Area 2D), Adsorption & Ion Exchange (Area 2E), Fluid Particle Separations (Area 2F), and Bioseparations (Area 2G).

Each award comprises a \$200 check and a plaque. Nominees must be (have been) graduate students since the last Annual AIChE meeting and/or the following calendar year. A nomination package includes: (1) A single nomination letter detailing the student's strengths and accomplishments, by a faculty member who must be a member of AIChE; (2) A single research paper (published or otherwise) contributing to separations fundamentals or applications. This paper may be co-authored by others, but the student nominee must have been the primary author. The paper should be of a quality acceptable for publication in journals such as *AIChE Journal* or *Chemical Engineering Science*; and (3) The student's CV.

For 2019, the Separations Division is pleased to recognize the following students for excellence in separations research: (in alphabetical order)

Junyi Liu, University at Buffalo, SUNY, Buffalo, NY, for research in Membrane-Based Separations (Area 2D)

Junyi's research, with Advisor Professor Haiqing Lin, involved the development of polymeric membrane materials with focus on selectivity enhancement through solubility selectivity.

Yao Ma, Georgia Institute of Technology, Atlanta, GA, for research in Membrane-Based Separations (Area 2D)

Yao is working with Advisor Professor Ryan Lively, focusing on the development of carbon molecular sieve (CMS) membranes for organic solvent separation.

Pranav Bhaswanth Madabhushi, McMaster University, Ontario, Canada, for research in Distillation & Absorption (Area 2A)

Pranav, under the supervision of Professor Thomas Adams II, worked on improvements to the design procedure and control scheme of a semicontinuous distillation process. He also played an integral role in the research and development of SimSci ROMeO's mixed integer nonlinear programming technology which was patented by Schneider Electric.

Raj Manivannan, Oklahoma State University, Stillwater, OK, for research in Distillation & Absorption (Area 2A)

His research with Advisor Professor Clint Aichele is focused on quantifying the effect of liquid viscosity on point efficiency of distillation sieve trays and developing an improved efficiency correlation that is applicable over a wide range of liquid viscosities.



Marcus Mello presented Junyi Liu (left), Yao Ma (middle), and Raj Manivannan (right) with Graduate Student Research Awards recognizing their outstanding doctoral work in one of the Separations Division Areas.

Professor Dibakar Bhattacharyya Graduate Student Research Award

Recognizing Professor Bhattacharyya’s support and overall long-term commitment to student development in the membranes area.



Ratul Chowdhury

Pennsylvania State University, State College, PA

Ratul’s work with Advisor Professor Costas Maranas focused on a novel set of computational protein design tools to identify novel sequences of channel proteins, enzymes and antibody variable fragments. His main focus has been redesigning pore sizes of a naturally occurring beta-barrel porin to enable solute separations.

Ratul (middle) pictured with Dibakar Bhattacharyya (right) and Marcus Mello (left).

Election Results for 2020

Ranil Wickramasinghe, 2020 Division Chair



Ranil Wickramasinghe obtained his Bachelor's and Master's degrees from the University of Melbourne, Australia in Chemical Engineering. He obtained his PhD from the University of Minnesota, also in Chemical Engineering. He worked for 5 years in the biotechnology/biomedical

industry in the Boston area before joining the faculty of the Department of Chemical Engineering at Colorado State University. He joined the Department of Chemical Engineering at the University of Arkansas in 2011 where he holds the Ross E Martin Chair in Emerging Technologies. Prof Wickramasinghe has published over 140 peer reviewed journal articles, several book chapters and patents and is co-editor of a book on responsive membrane and materials. He has also served on the Board of Directors of the North American Membrane Society. He is the current director of the Membrane Science, Engineering and Technology (MAST) Center at the University of Arkansas, a NSF Industry/University Cooperative Research Center.

Ranil Wickramasinghe has been active in AIChE for many years. He is Fellow of AIChE. He is currently a member of the Admission Committee and the Fellows Council. He is a member of the AIChE Licensing and Professional Development Committee, and is a member Chemical Exam Committee of the National Council of Examiners for Engineering and Surveying (NCEES), the committee that writes questions for the Chemical Engineering PE Exam. He is a past-Chair of CEOC. He was the Meeting Program Chair of the 2013 Annual Meeting in San Francisco. He was very active in the Boston Local Section holding many positions including vice-president of the section and was on the General Arrangements Committee of the last AIChE summer meeting.

Anand Vennavelli, 2020 1st Vice-Chair



Dr. Anand Vennavelli holds a BS from Osmania University and MS and PhD degrees from Oklahoma State University, all in Chemical Engineering, and is a registered Professional Engineer in the state of Texas. He joined Fractionation Research, Inc (FRI) in 2011. His contributions to FRI are in model development and process

control, project planning and experimental research, and Device Rating Program (DRP) development. His prior experience at Phillips66 includes the design, commissioning, and maintenance of multivariable controllers (APC). He served as the AIChE Distillation and Absorption Area Chair, and is currently Second Vice Chair of the Separations Division. He serves as an adjunct faculty at OSU, and on the ISA106 standards committee.

Alice Z. He, 2020 2nd Vice-Chair



Alice Z. He is a consulting engineer at Chevron Energy Technology Company (ETC). She has 30 years of oil & gas industrial experience (Chevron and Mobil) after earning her Ph.D. degree in Chemical Engineering in 1989. Her technical expertise is in separations process R&D,

process modeling, and advancing new technologies from bench and pilot scale to commercial success. She has led the Separations Process R&D team at Chevron ETC for more than 15 years, where she leads a group PhD chemical engineers to research, develop, and apply novel separation process technologies in supporting internal Chevron customers across upstream and downstream businesses, and collaborates externally with practitioners in the field

from industry, academia, and national labs. She is an author and coauthor of more than 25 patents and patent applications. She is also a reviewer for refereed technical journals.

Alice has been a member of AIChE since 1988 and a member of the Separations Division since 1994. She has served in the Separations Division as an area co-chair of General Topic and Other Methods (2h) from 2010–2016. She has created, organized, chaired, and presented multiple technical sessions at AIChE annual meetings, such as Green Solvents for Separations, Hybrid Separations Process, Water in Developing Communities, and Separation challenges in upstream, etc. She was elected to one of the directors of AIChE's Separations division in 2015 and has been served at that capacity since.

Atanas Serbezov, 2020 Secretary



Atanas Serbezov is a Professor of Chemical Engineering at Rose-Hulman Institute of Technology in Terre Haute, IN. He holds BS (1991) and MS (1991) degrees in Process Control from the University of Chemical Technology and Metallurgy, Sofia, Bulgaria and MS (1995) and PhD (1997) degrees in

Chemical Engineering from the University of Rochester, Rochester, NY.

Atanas started his professional career in 1991 as a process control engineer at Honeywell. Upon earning his doctorate degree, Atanas joined the adsorption R&D group at Praxair. In 1998 he joined the faculty at Rose-Hulman Institute of Technology. While in academia, Atanas has worked as a consultant for Praxair, Eli Lilly and General Electric.

Atanas joined AIChE and the Separations Division in 1995 as a graduate student. He started his volunteer work for the Institute and the Division in 1997. Atanas has been the Division's Secretary since 2002. In 2011 Atanas was presented with the Separation Division's Service Award (now the Founders Award).

Tarun Poddar, 2020 Treasurer



Tarun Poddar is working in application and business development for WL Gore and Associates, Elkton, MD. Prior to joining this group he worked in new business development in microfiltration business for the same organization. Tarun has close to 25 years of industrial

experience in two different countries and in four different organizations. His experience ranges from plant design and operation in heavy and specialty chemical manufacturing to technology development, product development, application development, and commercialization of new technologies in filtration–separation areas. Tarun has several publications in peer reviewed journals and presentations in various international meetings. He also has multiple patents in his name. Tarun is a member of American Institute of Chemical Engineers (AIChE) and actively involved with the organization. He served as a vice chair and chair of are 2D of Separation Division from 2010 to 2013 and as a director of Separation Division from 2013 to 2017. Since 2017 Tarun is working as Assistant Treasurer for the division. Tarun has organized many topical conferences and chaired numerous sessions in AIChE meetings. He served as an industrial advisory board member for Membrane Science Engineering, and Technology center- an NSF Industry/University Cooperative Research Center. Tarun holds a doctorate from New Jersey Institute of Technology, a master's from Indian institute of Technology-Kanpur and a bachelor's from Jadavpur University, all in chemical engineering.

New Directors

Stefano Brandani, Director (2020-2024)



I earned my Laurea (MEng) degree in 1991 from the University of L'Aquila and my Ph.D. in 1994 from the University Naples Federico II, both in Chemical Engineering. As part of my Ph.D. studies I spent a year at the University of New Brunswick,

Canada, working on adsorption fundamentals. Since 1994, I have been an academic chemical engineer initially in Italy (University of L'Aquila, Lecturer) and in 1998 I moved to the UK, at University College London (Senior Lecturer, then promoted to Reader in 2000 and finally full Professor in 2003). I joined the University of Edinburgh in 2007, where I am the Chair of Chemical Engineering. I have held several senior positions at both UCL and the University of Edinburgh, including Director of Research for the School of Engineering and Director of the Chemical Engineering Discipline, with line management duties for 30 academics.

I am the recipient of a Philip Leverhulme Prize and a Royal Society-Wolfson Research Merit Award. I am a Fellow of the IChemE and a Senior Member of the AIChE. I am a Cavaliere dell'Ordine della Stella d'Italia, an honor bestowed by the President of Italy for services to scientific and technological research.

My research activity covers several aspects of adsorption fundamentals and processes; applied thermodynamics; and fluidization. The main focus of my research is aimed at finding efficient processes to reduce carbon emissions. I have authored or co-authored over 160 peer-reviewed publications and I have led several large (>\$1M) research consortia with many industrial collaborations.

I have been involved with the Separations Division, attending my first AIChE annual meeting in 1997. Since 2000 I have attended all AIChE annual meetings with only one exception (2011) as an author or co-author of 60 research contributions. Since 2002 I have chaired or co-chaired 13 sessions within Area 2e. I served as Vice-Chair of Area 2e in 2016-2017 and Chair in 2018-2019.

Stephen W. Thiel, Director (2020-2024)



Stephen W. Thiel is a Professor-Educator in the Department of Chemical and Environmental Engineering at the University of Cincinnati (UC) and currently serves as the Undergraduate Program Director for Chemical Engineering. He received his B.S. in Chemical Engineering from

Virginia Tech in 1981 and his Ph.D. in Chemical Engineering from the University of Texas at Austin in 1986. He is a licensed professional engineer in the State of Ohio.

In addition to 19 years on the UC Chemical Engineering faculty, Steve's professional experience includes 1.5 years at Oak Ridge National Laboratory and 13 years at Henkel Corporation/Cognis Corporation in roles ranging from process engineering to strategic planning to process development. His early research focused on membrane separations and membrane formation; his more recent research has been in the area of adsorption and ion exchange. Since 2012, his principal teaching assignment has been Process Design, but in the past he taught elective courses in biochemical engineering, membrane separations, and adsorption processes.

Steve has been a member of AIChE for 32 years, and is currently a Senior Member. He is part of the leadership team for the Ohio Valley Local Section, and has previously served as Newsletter Editor, Treasurer, Program Chair, and Chair of the Ohio Valley Local Section. He is also the faculty advisor for the UC Student Chapter of AIChE. In the Separations Division, he has served as Vice Chair and Chair of the Bioseparations area.

2019 Separations Division Officers

Elected Officers

Chair:	Marcus Dutra e Mello (mvdem@chevron.com)
1 st Vice Chair:	Ranil Wickramasinghe (swickram@uark.edu)
2 nd Vice Chair:	Anand Vennavelli (vennavelli@fri.org)
Past Chair:	Roger D. Whitley (whitlerd@airproducts.com)
Secretary:	Atanas Serbezov (serbezov@rose-hulman.edu)
Treasurer:	Neil Yeoman (loretta.neil@yahoo.com)
Assistant Treasurer:	Tarun Poddar (tpoddar@att.net)
Directors:	Christopher Burcham (2015-2019) (cburcham@lilly.com)
	Megan Donaldson (2015-2019) (medonaldson@dow.com)
	Lauren Greenlee (2016-2020) (greenlee@uark.edu)
	Isaac K. Gamwo (2017-2021) (gamwo@netl.doe.gov)
	Alice Z. He (2016-2020) (azhe@chevron.com)
	Haiqing Lin (2019-2023) (haiqingl@buffalo.edu)
	Angela Lueking (2019-2023) (luekinga@mst.edu)
	Seyi Oduyungbo (2018-2022) (seyiodu@chevron.com)
	Paul Scovazzo (2018-2022) (scovazzo@olemiss.edu)
	Marina Tsianou (2017-2021) (mtsianou@buffalo.edu)

Appointed Officers

Awards Program Coordinator:	Anand Vennavelli and Seyi Oduyungbo
LinkedIn Group Account Manager:	Marcus Dutra e Mello
Chemical Technology Operating Council (CTOC) Liaison:	Ranil Wickramasinghe
Webmaster:	Megan Donaldson
Newsletter Editor:	Marina Tsianou

2019 Separations Division Area Chairs

2A, Distillation & Absorption, Chair:	Andrew Sloley
Vice Chair:	<i>vacant</i>
2B, Crystallization & Evaporation, Chair:	Seth Huggins
Vice Chair:	Thomas Vetter
2C, Extraction, Chair:	George Goff
Vice Chair:	<i>vacant</i>
2D, Membrane-Based Separations, Chair:	Haiqing Lin
Vice Chair:	Mahdi Malmali
2E, Adsorption & Ion Exchange, Chair:	Stefano Brandani
Vice Chair:	Peter Ravikovitch
2F, Fluid-Particle Separations, Chair:	Seyi Oduyungbo
Vice Chair:	Isaac Gamwo
2G, Bioseparations, Chair:	Nick Merchant
Vice Chair:	Caryn Heldt
2H, General Topics & Other Methods, Chair:	Josh Thompson
Vice Chair:	Stephen Ritchie

Future AIChE Meetings

<https://www.aiche.org/conferences-events>



2020 AIChE Annual Meeting, November 15-20, 2020, Hilton San Francisco Union Square, San Francisco, CA

2021 Spring Meeting and 17th Global Congress on Process Safety, April 18-22, 2021, Hilton Anatole, Dallas, TX

2021 AIChE Annual Meeting, November 7-12, 2021, Marriott Boston Copley Place, Sheraton Boston, Westin Copley Place, Hilton Boston Back Bay, John B. Hynes Convention Center



Message from the Newsletter Editor

Greetings! I am delighted to serve as the Separations Division Newsletter Editor. If you have any announcements, photos, comments to share, please forward these to me at mtsianou@buffalo.edu.

I look forward to hearing from you! -*Marina Tsianou*

