

AIChE Process Development Division Fall Newsletter 2017

For more information, visit

<http://www.aiche.org/community/sites/divisions/process-development>

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Message from the Chair

Welcome to the Fall 2017 Edition of the AIChE Process Development (PD) Division Newsletter. This will be my last newsletter as Division Chair. It is astonishing how quickly two years can pass. It has been a great journey working with all the excellent people we have in the Division along with the talented support of our AIChE colleagues. This was truly an honor for me and I'd like to thank everyone for their support.

The 2017 Annual Meeting in Minneapolis is just 1 week away. Registration is still open at the AIChE website. We will be having our leadership, programming and membership meetings for the Division on October 30 and 31. I'd encourage members who want to become more active in the Division to join us for the programming and membership meetings. We will also be having our Division mixer and dinner on the evening of the 31st. The mixer is an excellent opportunity to get to know our Division members.

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Message from the Chair (Cont.)

For 2018, we will be electing a new chair and treasurer to the Division leadership. On-line balloting is happening now. We will also be transitioning to new area chairs, chair elects and adding area coordinators for each area.

The Spring 2018 AIChE meeting will be held April 22 – 26 in Orlando, Florida. The Division has a number of sessions planned for the meeting and your participation is encouraged. The call for abstracts remains open until November 13.

Once again thanks for all of your support. I look forward to working with our incoming new Division Chair Bob Huss to continue the outstanding contributions of the Division.

Best regards,

Bill Hollar

Process Development Division Chair

Process Development Division Election 2018: Please Vote!

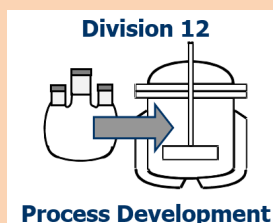
The Process Development Division (PDD) election will be taking place from October 17, 2017 to October 31, 2017. You can cast your vote online at:

<https://www3.aiche.org/Elections/Home.aspx?ElectionID=12674425-F867-4FFF-B197-3351EE44780D>

An election announcement has also been posted on the Division's website:

<http://www.aiche.org/community/sites/divisions/process-development>

You can review each candidate's biography by clicking on his or her name. Once you have made your selection(s), remember to click "Vote". You will be voting for one Chair elect (2018-2019) and one Treasurer (2018-2019). If you have any problems accessing the ballot, please contact Diane Cappiella at AIChE at the following email address: dianc@aiiche.org



Interested in nominating yourself or a colleague for the following categories

- Excellence in Process Development Research Award
- Process Development Practice Award
- Process Development Division Student Paper Award

Please fill out the Nomination form at

<http://www.aiche.org/community/sites/divisions/process-development/awards>

Join Process Development Division (PDD)

The PD division promotes networking and communication among engineers and scientists interested in process development through meetings, seminars, courses, and publications. This division also organizes AIChE activities in the field, and materials with other related societies.

In addition, the PD division provides a forum for the engineer and educator to exchange information and ideas.

Chartered: 2000, Dues: \$10

2017 Process Development Award Winners

Excellence in Process Development Research Award: Prof Massimo Morbidelli, Institute for Chemical and Bioengineering, Department of Chemistry and Applied Biosciences, ETH Zürich (Sponsor: Pfizer Inc.)



Massimo Morbidelli received his Laurea in Chemical Engineering at the Politecnico di Milano and PhD at the University of Notre Dame. He is currently Professor of Chemical Reaction Engineering at the Institute for Chemical and Bioengineering at ETH Zurich (Switzerland). His main research interest is currently in the area of integrated continuous up and downstream processes for the purification of therapeutic proteins, their PEGylation reactions and other processes of interest in the pharmaceutical industry. Massimo Morbidelli is co-author of more than 600 papers, 11 international patents and four books. He serves as an associate editor of the ACS journal of Industrial & Engineering Chemistry Research, and is the recipient of the 2005 R.H. Wilhelm Award in Chemical Reaction Engineering of the American Institute of Chemical Engineers, of the 2014 Gerhard Damköhler-Medaille of DECHEMA and VDI-GVC. He is a cofounder of ChromaCon Ltd., a spin-off company from his research group, which brings new chromatographic processes (MCSGP-technology) for the purification of proteins and peptides to the market.

Process Development Practice Award: Joseph B. Powell, Chief Scientist, Shell, Chemical Engineering, Westhollow Technology Center (Sponsor: Zeton Inc.)



Joe Powell (Joseph B. Powell, Ph.D.) is a Fellow of the American Institute of Chemical Engineers, and has been Shell's Chief Scientist - Chemical Engineering since 2006. In 1988 he joined the Process Development Department at Shell Technology Center Houston, where he has led R&D programs in new chemical processes, biofuels, and enhanced oil recovery, in addition to a Hunters innovation group. Dr. Powell has been co-inventor on more than 125 distinct patent applications with more than 60 granted, and has received several industry awards including the A. D. Little Award for Chemical Engineering Innovation (AIChE 1998), R&D100 Award (R&D Magazine) and American Chemical Society Team Innovation Award (2000), U. Wisconsin College of Engineering Distinguished Achievement Award (2009), AIChE Process Development Division Service Award (2012) and Practice Award (2017). He is co-editor and chapter author for the book Sustainable Development in the Process Industries: Cases and Impact, John Wiley & Sons, New York (2010), and has served AIChE in various roles including Process Development Division Programming chair, Spring Meeting Program Chair (2015) and Co-Chair (2012), Chemical Technology Operating Council, Executive Board Programming Committee, Pilot Plants 12B Area Chair, Shale Gas and Sustainability Topical Chairs. Joe currently serves on the U.S. National Academy Board on Chemical Sciences and Technology, U.S. Department of Energy Hydrogen Technical Advisory Committee, editorial committee of Annual Review of Chemical and Biological Engineering, and was elected to the Board of Directors of AIChE (2016). He obtained a Ph.D. in Chemical Engineering from the Univ. of Wisconsin-Madison (1984), following a B.S. in Chemical Engineering from the Univ. of Virginia (1978).

Process Development Division Student Paper Award: Honglin Qu, PhD Candidate, Lamar University (Sponsor: Praxair Inc.)



Mr. Honglin Qu currently is a Ph.D. candidate in the Dan F. Smith Department of Chemical Engineering at Lamar University and he is advised by Professor Qiang Xu. Prior to joining Lamar University, Honglin received his bachelor degree in Chemical Engineering from East China University of Science and Technology, Shanghai, China, in 2012. His main research focuses on process development and optimization, and supply chain optimization. Honglin has done great work and published several papers, including Qu et al., *Computer and Chemical Engineering*, 90 (2016) 171-187, and Qu et al., *Chemical Engineering Science*, 167 (2017) 251-264



Mark Your Calendar

2018 PROCESS DEVELOPMENT SYMPOSIUM

JUNE 5-7, 2018

THE HYATT LODGE AT HAMBURGER UNIVERSITY

OAK BROOK, IL



ABOUT PDS

The 2018 Process Development Symposium is a place to exchange wisdom, knowledge, tips, and personal experiences in the development and scale-up of chemical and related processes.

Join us for the 2018 Process Development Symposium, taking place just outside of Chicago at Hamburger University in Oak Brook, IL!

**FOR MORE INFORMATION
VISIT WWW.AICHE.ORG/PDS**

POSSIBLE SESSION TOPICS INCLUDE:

- | | |
|----------------------------|---------------------------|
| • Process Optimization | • Scale-up |
| • Process Intensification | • Batch vs Continuous |
| • Case Studies | • Emerging Technologies |
| • Economic Analysis | • Unit Operations |
| • Modeling and Computation | • Sustainable Engineering |



Annual Meeting – What you need to know

Process Development Division (PDD) Dinner

The Process Development Division Dinner provides an excellent opportunity for networking. Plan to attend and become more engaged in the Division!

When: Tuesday Oct 31, 2017
Time: 6:30 – 7:30 PM (FREE Reception for PDD members)
7:30 – 9:30 PM (Ticketed Dinner)
Where: The Newsroom
Address: 990 Nicollet Mall, Minneapolis, MN 55403
Phone: (612) 343-0073
Cost: \$60 per person



Annual Meeting Highlights

- Celebrate the 2017 Annual Meeting Award Winners
- John M. Prausnitz AIChE Institute Lecture
- Meet the Presidents
- 3D Printing Fundamentals and Applications
- Poster Sessions
- Meet the Faculty Candidate Poster Session
- Meet the Executives: Innovating for a Sustainable Future
- The Lifetime Edge: What Every Graduate Should Know About Industrial Process Safety
- Diversity and Inclusion: Starting and Thriving in the Workplace
- Topical Conferences for 2017
- Career Planning & Development Sessions
- IACChE's James Y. Oldshue Lecture
- 2017 Invited Sessions
- Sponsored Technology Workshops
- 2017 Andreas Acrivos Award for Professional Progress in Chemical Engineering Lecture
- LGBTQ+ & Allies Reception: Hosted by AIChE Leadership
- SBE's James E. Bailey Award Lecture
- Networking for Nerds
- Career Services Workshop
- MAC Chemical Engineering Forum - 2017 MAC Eminent Engineers Awards



The AIChEvents App is Now Available

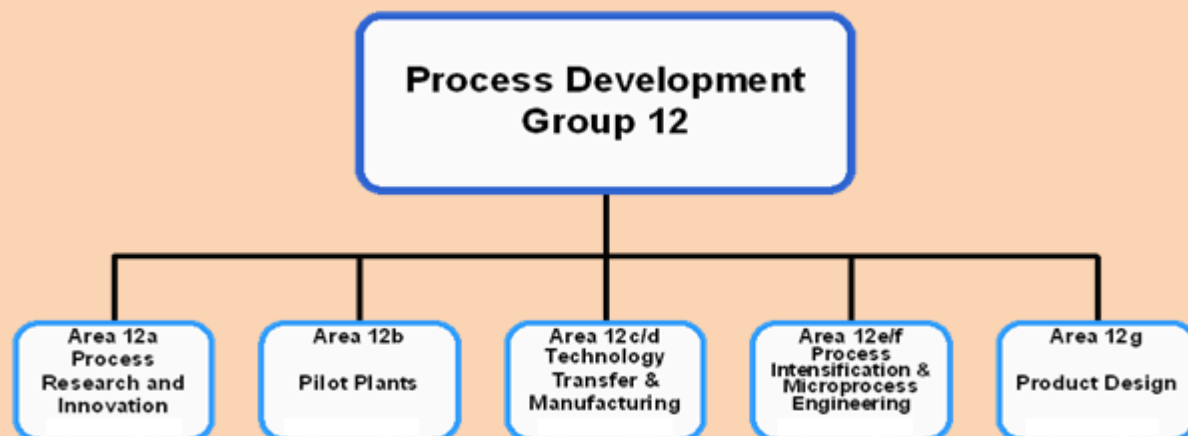
Put away your pen and paper. Everything you need to manage your time at the meeting is available on your phone or mobile device with the AIChEvents app.



New Programming for 2017

- Chemical Engineers in Medicine
- Food-Energy-Water Nexus
- Microbiomes & Microbial Communities
- Next-Gen Manufacturing
- NH₃ Energy+- Enabling Optimized, Sustainable Energy and Agriculture
- Process Intensification & Modular Chemical Processing
- Symposium on Solar Power and Chemical Systems in Honor of Prof. Edward A. Fletcher
- Thermal Deconstruction of Biomass

PDD Annual Meeting 2017 Programming



Sunday, October 29

03:30 PM - 06:00 PM

#18 Bioseparations and Downstream Processing

Minneapolis Convention Center - 206A/B

#22 Cutting Edge and Innovative Corporate & Industrial Research Projects (Invited Talks)

Minneapolis Convention Center - 101H

#35 Panel Speakers Forum: Chemical Process and Product Careers in Academia Vs. Industry

Minneapolis Convention Center - 102B

Monday, October 30

08:00 AM - 10:30 AM

#88 Physical Properties for Chemical Process and Product Design

Minneapolis Convention Center - 102B

#91 Risk Reduction in- and Implementation of- Process & Technology Development

Minneapolis Convention Center - 102C

12:30 PM - 03:00 PM

#152 In Honor of Stuart W. Churchill I (Invited Talks)

Minneapolis Convention Center - 101E

#176 Solve this! Fundamental Approach to Problem Solving in Industrial Processes I (Invited Talks)

Minneapolis Convention Center - 101I

#180 Tools for Product Design

Minneapolis Convention Center - 102B

03:15 PM - 05:45 PM

#210 Best Practices in Pilot Plants

Minneapolis Convention Center - 102C

#215 Development of Sustainable New Materials and Intermediates

Minneapolis Convention Center - 102B

PDD Annual Meeting 2017 Programming Continued (1)

Tuesday, October 31

08:00 AM - 10:30 AM

#277 Crystallization Process Development

Minneapolis Convention Center - 102B

#278 Design, Construction and Operation of Unit Operations Labs and Pilot Plants

Minneapolis Convention Center - 102C

12:30 PM - 03:00 PM

#368 Integrated Process Engineering and Economics Analysis

Minneapolis Convention Center - 103B

#382 Process Intensification By Process Integration

Minneapolis Convention Center - 101E

#384 Process Research & Innovation for Improved Process Efficiency

Minneapolis Convention Center - 102B

03:15 PM - 05:45 PM

#408 Advances in Process Intensification

Minneapolis Convention Center - 101E

#417 Conceptual Process Design in Refining, Petrochemicals and Gas Processing

Minneapolis Convention Center - 200A

#429 Industrial Innovations through Modeling and Optimization

Minneapolis Convention Center - 102B

Wednesday, November 1

08:00 AM - 10:30 AM

#502 Pharmaceutical Process Development and Pilot Plants

Minneapolis Convention Center - 102C

#503 Process Intensification through Process Systems Engineering

Minneapolis Convention Center - 101D

12:30 PM - 03:00 PM

#567 Process Intensification through the Application of Microreactors and Membrane Reactors

Minneapolis Convention Center - 101E

#568 Process Scale-up Techniques

Minneapolis Convention Center - 102C

03:15 PM - 04:45 PM

#586 Poster Session: Process Development

Minneapolis Convention Center - Exhibit Hall B

03:15 PM - 05:45 PM

#624 Process Intensification By Enhanced Heat and Mass Transfer

Minneapolis Convention Center - 101E

PDD Annual Meeting 2017 Programming Continued (2)

Thursday, November 2

08:00 AM - 10:30 AM

#657 Critical Quality Attribute Monitoring and Control in Pharmaceutical Manufacturing I

Minneapolis Convention Center - 205C

#666 Integrated Product and Process Design

Minneapolis Convention Center - 103C

2018 Spring Meeting

April 22-26, 2018, Orlando, FL

PDD Tentative Sessions:

12 Process Development Division

12000 Poster Session: Process Development
12000 Division Plenary Session – Oral Session

12A Process Research and Innovation

12A00 Process Innovations for Increased Energy Saving - Oral Session
12A00 Process Research and Development for Industrial Sustainability - Oral Session
12A00 Modeling Tools and Techniques for Process R&D - Oral Session
12A00 Biomass Conversion to Valuable Products - Oral Session

Pilot Plants (12B)

12B00 Challenges in Process Scale up - Oral Session
12B00 Pilot Plant and Laboratory Safety - Oral Session
12B00 Pilot Plant Success Stories - Oral Session
12B00 Pilot Plant Separations - Oral Session

Technology Transfer & Manufacturing (12C)

12C00 Technology Transfer: The Process and the Applications - Oral Session
12C00 Best Senior Design Competition - Oral Session
12C00 Innovations in and Next-Gen Heat Transfer Challenges - Oral Session
12C00 Smart Manufacturing - Oral Session

Process Intensification & Microprocess Engineering (12E)

12E00 Advances in Process Intensification (PI) - Oral Session
12E00 Process Intensification Opportunities - Oral Session

Product Design (12G)

12G00 Advances in Product/Process Design & Development - Oral Session

Call for Papers closes November 13, 2017



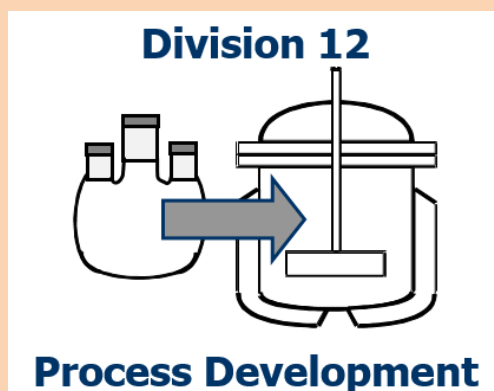
**CALL FOR ABSTRACTS
NOW OPEN**

APRIL 22-26, 2018
ORLANDO WORLD CENTER MARRIOTT

SUBMIT YOUR ABSTRACT

Process Development Area Leadership

	Chair	Chair Elect	Area Coordinator
12A Process Research & Innovation	Tom Enright Xerox Research 905-823-7091 x345 tom.enright@xerox.com	Tom Xu DuPont Tom.Xu@dupont.com	James Marek James.marek@abbvie.com
12B Pilot Plants	Oliver Orrell Zeton Inc. 905-632-3123 x264 oorrell@zeton.com	Hsiang Yee Lai hsiang.lai@swri.org	Nitin Tople SABIC 412-576-4840 nitin.tople@sabic.com
12C/D Technology Transfer & Manufacturing	Ahmed A. Youssef SABIC T: 812.831.4121 ahmed.youssef@sabic.com	Qiang Xu ChE Dept, Lamar University 409-880-7818 qiang.xu@lamar.edu	Minghua Ye SABIC mye@sabic.com
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12G Product Design	Mosha Zhao ExxonMobil Chemical Company T : 281-834-2626 Email: mosha.h.zhao@exxonmobil.com	Sitaraman Krishnan Clarkson University skrishna@clarkson.edu	Kishori Deshpande Dow Chemical Company kdeshpande@dow.com



Process Development Division Leadership (2017-2018)

Chair 	William Hollar SABIC Phone: 812-831-4751 Email: william.hollar@sabic-ip.com	Chair Elect 	Robert Huss Eastman Chemical Company Phone: 423-229-6425 E-mail: rhuss@eastman.com
Program Chair 	Joseph W. Schroer SABIC Phone: 281.207.5601 Email: jschroer@sabic.com	Membership Chair 	Adam Whalley Zeton Inc. Phone: 905.632.3123 x235 Email: awhalley@zeton.com
Assistant Program Chair 	Juben Chheda Shell Oil Company Phone: 281 544 8232 Email: juben.chheda@shell.com	CTOC Liaison / Government Relations 	Joseph Powell Royal Dutch Shell Group Phone: 281-544-8976 Email: Joe.Powell@Shell.com
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