

AIChE Process Development Division Newsletter

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November 12-17, 2006
San Francisco Hilton
San Francisco, California

PROCESS DEVELOPMENT DIVISION MEETINGS at 2006 ANNUAL AIChE MEETING:

(Note: All meetings will be held in the San Francisco Hilton Hotel)

Sunday November 12th

- Steering Committee Meeting at 4:30-6:30 PM in Seacliff Executive Conference Room

Monday November 13th

- Area 12B Meeting at 6:30-7:30 PM in Union Square 11 (concurrent with part of poster session - see p.5 for details)

Tuesday November 14th

- Division Meeting at 11:00 AM -12:30 PM in Union Square 23
- Area 12C (in Mason A & B), 12D (in Powell A & B), and 12G-Product Design (in Union Square 14) Meetings held concurrently at 6:00-7:00 PM
- Process Development Division Dinner at 7:30-10:00 PM at La Scene (Warwick Regis Hotel)
Tickets are limited and should be purchased when registering for the meeting.

Wednesday November 15th

- Areas 12A (in Franciscan C), 12E (in Franciscan B), and 12F (in Franciscan A) Meetings held concurrently at 11:00 AM - 12:00 PM

Register online at <https://www.aiche.org/apps/ecommerce/meetreg/meetreg.asp>
For more session information, see Page 4.

AIChE Process Development Division Newsletter

From the Chair...

Welcome to the Fall 2006 edition of the AIChE Process Development Division! We have almost 700 members and are always open to new members with an interest in principles of process development and emerging trends.

We held our third Process Development Symposium this past June in Palm Springs, Ca. This bi-annual event is becoming an increasingly popular venue for process development professionals to meet in small interactive sessions and share their experiences in the field. We're looking forward to our next symposium which is being planned for June 2008 in the Berkshires. More information will be available at the San Francisco meetings.

Our next event is the Fall annual meeting and conferences in San Francisco the week of Nov. 12th. The Process Development Division will be conducting topical sessions on "Pilot Plant Design and Optimization" and "Product Design". Of particular note is the Plenary Session on Opportunities and Challenges in Product Design, where one of the keynote speakers will be Bob Langer of MIT. In addition to the topicals, the division will host about six other sessions in our various programming areas and many other sessions co-sponsored with other divisions.

Our six programming areas are Process Research and Innovation, Pilot Plants, Technology Transfer, Manufacturing, Microprocessing Engineering, and Process Intensification. A new proposed area, Product Design, already has its own topical at the annual meeting. We welcome any who are interested in joining the division and becoming active in these areas.

One of the greatest assets of this division is the networking at the division meetings and social events. The division has a general meeting and each technical area has a programming meeting at each conference. Hope you can join us at these meetings in San Francisco to learn more about the division. (Details are in this newsletter).

The Process Development Dinner will be held at LaScene restaurant in the San Francisco Warwick Regis hotel on Tuesday evening November 14th. Tickets may be purchased when you register for the annual meeting. Please purchase early since we always sell out.

Looking ahead, the Spring 2007 national meeting and conferences will be held in Houston the week of April 22nd. The call for papers is open until **November 30, 2006**, so act now!

The Process Development steering committee is looking forward to meeting any new folks with an interest in the division in San Francisco. This newsletter and our website (www.pd-aiche.com) will give you more information about our exciting activities. Please feel free to contact anyone from the leadership team at the end of the newsletter. Thanks!

John Peragine – Process Development Division Chair

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ANNOUNCEMENTS:

Area 12B Pilot Plants News

For the upcoming Fall Annual Meeting in San Francisco, Area 12B is sponsoring Topical 5: Pilot Plant Design and Optimization. The Area 12B meeting is tentatively scheduled for Monday evening 6:30-7:30 pm (**see p.1 for details**), in proximity to the Pictures of Pilot Plants poster session. Please plan to attend!

Area 12B is considering publishing an edited book "Best Practices in Pilot Plants and Process Development", which would include elements of the Pilot Plants Benchmarking study from 2004. Contact Joe Powell (Joe.Powell@Shell.com) if you would be interested in contributing a paper to this edited collection.

The nominee for **activities chair in Area 12B** is Adam Whalley, from Zeton. Adam's nomination will be voted on during the 12B Area meeting at the upcoming Fall Annual Meeting in San Francisco. The contact information for Adam is provided below:

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Call for Papers

The call for papers is now open for **Spring 2007 (Houston)**. Area 12B is sponsoring **Tools and Best Practices in Pilot Plants**. This general session on the theme of pilot plants seeks to present views and examples of best practices and strategies for pilot plant programs, including scale-up and scale-down, continuous or staged pilots, use of tollers or outside vendors, use of specialized in situ or off-line analysis tools, or other tricks that make-or-break the effectiveness of the program. Please consider presenting a paper. **Deadline for proposals to present is November 30, 2006.**

Area 12D is also co-sponsoring a session **Sustainable Manufacturing**, for the 2007 Spring Meeting in Houston together with the Sustainable Engineering Forum. This session seeks best practices and examples of sustainability in manufacturing. Included are programs and approaches for considering sustainability in selection among project or process options, as well as specific examples of process improvements, additions, or modifications that led to reduction in footprint or other sustainability enhancements. Sustainability is best defined as maintaining the ability to meet the needs of the current generation, without compromising the ability of future generations to meet their needs. **Again, the deadline for proposals to present is November 30, 2006.**

2008 Process Development Division Symposium

Chemical Product Engineering – The Third Paradigm

AChE's Process Development Division invites you to the 2008 Process Development Symposium to be held in June 2008.

Tentative Venue: Berkshires, MA (Specific dates and location to be determined)

Today's global marketplace demands an ever-greater rate of product innovation, forcing many companies to re-examine their approaches to new product development. The need for more systematic approaches to chemical product design has led to the emergence of Chemical Product Engineering as a new discipline within chemical engineering, which many recognize as chemical engineering's "third paradigm."

The Symposium will explore various aspects of this new discipline, and will include both oral and poster presentations, as well as opportunities for networking with attendees and vendors.

We are currently looking for volunteers to chair sessions and/or to deliver oral or poster presentations, as well as companies that would like to sponsor the event. If you would like to either volunteer or sponsor, please contact the chairman, Michael Hill at michael@mhillassoc.com.

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PROCESS DEVELOPMENT DIVISION PROGRAMS:

Monday, 13 November 2006

8:00 AM - 11:00 AM

#39 - New Process Patents Class (12C01)

Wednesday, 15 November 2006

8:00 AM - 11:00 AM

#354 - Microreactors: Applications for Chemical Production (12E00)

12:30 PM - 3:00 PM

#415 - University Collaboration Panel (12C02)

Thursday, 16 November 2006

12:30 PM - 3:00 PM

#551 - Impact of Process Intensification on Process Design (12F00)

Friday, 17 November 2006

8:00 AM - 11:00 AM

#648 - Sustainable Engineering in Process Development (12A00)

12:30 PM - 3:00 PM

#668 - Modeling for PAT (12C00)



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TOPICAL CONFERENCE PROGRAMS:

Topical 5: Pilot Plant Design and Optimization

Monday, 13 November 2006

8:30 AM – 11:00 AM

#52 - Unit Operations: Scale up and Scale-down in Pilot Plants (T5002)

3:15 PM - 5:45 PM

#151 - Strategies in Biopharmaceutical Scale-up & Pilot Plants (T5003)

6:300 PM - 9:00 PM

#161 - Pictures of Pilot Plants and University Unit Operation Labs (T5001)

Tuesday, 14 November 2006

8:30 AM - 11:00 AM

#198 - Pilot Plants in the Food and Consumer Products Industries (T5000)

Topical 7: Product Design

Monday, 13 November 2006

12:30 PM – 3:00 PM

#91 - Plenary Session on Opportunities and Challenges in Product Design (T7007)

3:15 PM - 5:45 PM

#132 - Incorporation of Product Design into Chemical Engineering Education (T7001)

Tuesday, 14 November 2006

8:30 AM - 11:00 AM

#174 - Case Studies in Product Design - I (T7005)

12:30 PM – 3:00 PM

#223 - Case Studies in Product Design - II (T7000)

3:15 PM - 5:45 PM

#304 - Property Estimation and Modeling for Product Design (T7002)

Wednesday, 15 November 2006

8:30 AM - 11:00 AM

#349 - Integrated Product and Process Design (T7006)

12:30 PM – 3:00 PM

#402 - Novel Polymer Product Designs and Applications (T7010)

Thursday, 16 November 2006

8:30 AM - 11:00 AM

#503 - Management and Business Issues in Product Design (T7003)

12:30 PM – 3:00 PM

#565 - Sustainability in Product Design (T7011)

3:15 PM - 5:45 PM

#577 - Biomaterial Product Design (T7009)

AIChE Process Development Division Newsletter

Announcing the 2006 Process Development Division Awards

We are happy to announce the recipients of the 2006 Division Awards.

The 2006 Excellence in Process Development Research, sponsored by Pfizer, will be awarded to **Richard D. Braatz**, Professor and Millennium Chair, University of Illinois at Urbana-Champaign. Prof. Braatz is being recognized for the application of ATR-FTIR spectroscopy, laser backscattering, and nonlinear feedback control to pharmaceutical crystallization process development.

The recipient of the 2006 Division Student Paper Award, sponsored by Lilly, is **Jie Xiao**, Thomas C. Rumble Fellow, Wayne State University (MI). The award-winning paper is entitled "Ant-Colony-System-Based Dynamic Optimization for Curing Polymeric Coating", AIChE J. 52(4), 1410 – 1422, 2006.

The above awards will be presented on November 14, 2006, at the Division Dinner at the San Francisco Annual Meeting.

The 2006 Process Development Practice Award, sponsored by Zeton, was presented earlier this year at the Spring National Meeting in Orlando to George Liebermann, Senior Engineering Fellow, Xerox.

The Division congratulates the award recipients and thanks our corporate sponsors for their support in recognizing achievement in the area of Process Development.

Nominations for the 2007 Process Development Practice Award should be submitted by December 15, 2006.

Please refer to the [Division Awards page](#) for additional information.



Brain Teaser!

I am a world-renowned "symbol". In the English language, if I'm added to a noun, it turns to an adjective (in most cases).

If you put horizontal lines through me, I become a currency, but it is not used in many countries.

In Spanish, I am a "symbol", but also I am a word. I am used to connect words and phrases. If you watch your School House Rock, I go along with a junction.

What am I?

Answer on page 9.

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Process Development Division Leadership

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Leadership of Area 12a: Process Research and Innovation

<http://www.pd-aiiche.com/area12a/>

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Leadership of Area 12b: Pilot Plants

<http://www.pd-aiiche.com/area12b/>

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<http://www.pd-aiiche.com/area12c/>

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<http://www.pd-aiiche.com/area12d/>

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AICHE Process Development Division Newsletter

Leadership of Area 12e: Microprocessing Engineering

<http://www.pd-aiiche.com/area12e/>

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Leadership of Area 12f: Process Intensification

<http://www.pd-aiiche.com/area12f/>

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Leadership of Area 12G: Product Design (Proposed New Area)

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Activities Chair

Answer to Brain Teaser:

I am Y.

When Y is added to a noun, it often makes it an adjective; i.e. Hair+y=hairy, Smell+y=Smelly, etc.
When you put two horizontal line through a Y, it makes the Yen symbol, found in Japan.

In the Spanish language, Y is the translation for "and", which is a conjunction. If you watch School House Rock, they do a whole skit on Conjunction Junction.