Who should attend?
- Process & Research Development Chemists
- Organic Chemists
- Chemical Engineers
- Department Heads and Project Team Leaders
- Anyone involved in crystallization, process safety, and scale-up and production

Why attend?
- Benefit from current industry and application case studies and keynote presentations from industry and academic leaders
- Discover how strategies are evolving to meet today's challenges
- Gather important information on technical developments and solutions to common challenges
- Keep up-to-date with current and future trends
- Meet and network with key people working in your industry
- Complementary industry keynote and product/application workshops
# The 15th International Process Development Conference

## Conference Agenda

### Sunday, May 18, 2008
- **12-5** Complementary product and application workshops and keynote workshops (run by industry experts)
- **6:00** Reception/Conference Welcome Dinner

### Monday, May 19, 2008
- **8:30** Welcome and Introduction  
  Leen Schellekens, METTLER TOLEDO
- **8:45** **Session I: Process Research & Development**  
  **Chair:** Arne Zillion, PhD, Process Development, Novartis
  - **9:00** Theme Speaker
  - **9:20** Plenary Lecture: Challenging Problems in Organolithium Chemistry at the Academic-Industrial Interface  
    Prof. Dave B. Collum, Cornell University
  - **10:00** An Innovative Approach to Catalysis at AstraZeneca  
    Paul Murray, Head of Catalyst Screening, AstraZeneca
  - **10:30** Break
  - **11:00** Development of a New Crystallization Protocol  
    Alex Fabian, Principal Scientist, Global API Process Technology, Pfizer
- **11:30** Rapid Development of Biocatalytic Processes for the Synthesis of Pharmaceutical Intermediates  
  Fred Fieitz, PhD, Research Fellow, Process Research Biocatalysis Group, Merck
- **12:00** PAT Tools for Pre-Clinical Pharmaceutical Research and Development  
  Ben Littler, Associate Director, Chemical Development, Vertex
  - **12:30** Panel Discussion

### Tuesday, May 20, 2008

#### Session II: Crystallization
- **8:30** **Chair:** Sean Daziel, Associate Director, Pharmaceutical Sciences, Theravance
- **8:45** Theme Speaker
- **9:05** Plenary Lecture: An Integrated PAT Approach for Pharmaceutical Crystallization Process Understanding  
  Huiquan Wu, PhD, Chemical Engineer, FDA
- **9:45** Scale-up and Optimization of Antisolvent Crystallization: From Lab to Pilot Plant  
  Mark Barrett, UCD, Ireland
- **10:15** Optimization and Scale-up of a Protein-Antisolvent Crystallization Step Employing Lasentec® FBRM® and PVM®  
  Adam Soikoniuki, Process Development Engineer, Altus Pharmaceutical Inc.
  - **10:45** Break
  - **11:15** An Approach to Fit-for-Purpose Crystallization Design Utilizing Lasentec® FBRM® and PVM®  
    Rahn McKeown, Particle Scientist, GSK
  - **11:45** Crystallization Studies Using Lasentec® and Multimax™  
    Satyand S. Chirravuri, Sr. Manager, Orchid Chemicals & Pharmaceuticals Ltd.
  - **12:15** TBA
  - **12:45** Panel Discussion

#### Session III: Safety
- **8:30** **Chair:** Lr. Johan van Thienen, Research Fellow, Safety Testing Center, J&J
- **8:45** Plenary Lecture: Heat Flow as a Guide to Process Safety  
  Prof. Francis Stoessel, Process Safety, Institute of Chemical and Biological Process Science, Swiss Federal Institute of Technology Lausanne (EPFL)
- **9:45** Enhancing the Value of Process Safety Testing - Process Modeling Using Dynochem  
  Steve Richter, PhD, Research Investigator, abbott
- **10:15** First Experiences with the RTCal™ Reactor in the Safety Testing Center  
  Erika de Bie, Calorimetrists, J&J
- **10:45** Break
- **11:15** Applications of the RC1™ Calorimeter for Process Safety and Process Scale-up  
  Dr. Allen M. Beard, Sr. Process Development Specialist, Albemarle Corporation
  - **11:45** TBA
  - **12:15** TBA
  - **12:45** Panel Discussion

### Monday, May 19, 2008 (continued)
- **2:30** EasyMax™ Experience in Process Development at Wyeth  
  Dr. Martin Guinn, Associate Director - Chemical Development, Wyeth Research
  - **3:00** Break
  - **3:30** Use of In Situ Techniques for the Development and Implementation of Pharmaceutical Intermediates  
    Fred Buono, PhD, Senior Research Investigator, BMS
  - **4:00** TBA
  - **4:30** Panel Discussion
- **6:00** **Tavern Supper**  
  Step back in time as you dine at our tavern supper. Enjoy choice victuals, good wine, and hearty breads as your tavern mistress shares the current gossip or the latest news from England!

### Tuesday, May 20, 2008 (continued)
- **1:15** Lunch
- **2:30** **Social Activity: Colonial Pursuit**  
  Enjoy a guided walking tour of historic Annapolis with a twist! This will be followed by a crab feast aboard the Harbor Queen cruise ship on the Chesapeake Bay.
Wednesday, May 21, 2008

8:30 **session IV: Scale-up & Production**

Chair: Jason Cronin, Engineering Team Leader, Eli Lilly

8:45 Plenary Lecture

9:30 Ensure Safe Process Scale-up with Online Spectroscopy
George Zhou, Research Fellow, Merck

10:00 LabMax® Reactor for Semi-batch Polymerization Using Inferential Cascade Control
Jeff Hippler, Technical Leader Reaction Engineering, Dow Chemicals

10:30 Break

11:00 Scale-up a Complex Pharmaceutical Batch Process using Mid-IR: The Role of Simple Peak Height Profiling, PLS Modeling and Dynamic PCA
Shan Lin, Research Investigator, Abbott

11:30 Development of Continuous Flow Processes for Pharmaceutical Manufacturing
Jerry Salan, Principal Scientist, Pfizer

12:00 In Situ Mid-infrared Spectroscopy: A Tool in the Development of a Continuous Process for the Production of Cyclopropylcarbinitile
Norma Buchanan, R&D Associate Eastman Chemicals

12:30 Panel Discussion

1:00 Lunch

1:45 **session V: Emerging Technologies/Future Trends**

Chair: Srinivas Tummalo, Senior Research Investigator, Chemistry Technologies, BMs

2:00 Plenary Lecture: Using FTIR for Monitoring the Reaction and Self-assembly of Nanomaterials in Green Solvents
Paul A. Charpentier, PhD, Assistant Professor, Department of Chemical & Biochemical Engineering, University of Western Ontario

2:45 Flow Chemistry in the Pharmaceutical Industry including Reaction Optimization on the Meso Scale
Joel Hawkins, Senior Research Fellow, Pfizer

3:15 Use of ReactIR™ and Lasentec® to Monitor and Control Biofermentation Processes
Brian Gienow, Assistant Professor, School of Chemical and Bioprocess Engineering, University College Dublin

3:45 Technology - Changing the Way We Do Things
James Bruno, Managing Director, Chemical and Pharmaceutical Solutions

4:15 The Use of ReactIR® and Lasentec™ Data Analysis using iC IR® FbRM
Wilfried Hoffmann, Research Fellow, Pfizer

4:45 The Use of ReactIR® and Lasentec® for Scale-up and Campaigns
Jerry Salan, Principal Scientist, Pfizer

5:15 Panel Discussion

6:00 Awards dinner

**REGISTRATION FORM**

Contact information

Name __________________________ Email* __________________________

Name as you wish to have it appear on your conference badge __________________________

Job title __________________________ Department __________________________

Company __________________________

Address __________________________

Telephone __________________________ Fax __________________________

**Registration options:**

☐ Full Registration ($2,995)

☐ Early Bird Registration ($2,495 - available through 03.21.08)

☐ Day Attendance ($700 per day): MON TUE WED

☐ Credit card: Visa MasterCard American express

☐ Check (made payable to Mettler-Toledo AutoChem, Inc.)

☐ Invoice (purchase order must be received with registration form)

Purchase Order Number: __________________________

Expiration date: __________________________

☐ I would like to present a technical poster.

☐ I would like to attend the following complementary training sessions on Sunday: Check one box per time slot.

1PM-2PM:

☐ Process Safety Testing in Early and Final Development - A Balanced Approach
  Johan Von Thielen, Research Fellow, Safety Testing Center, &U
  Advanced ReactIR® Data Analysis using iC® and MonARC®

☐ Introduction to Quantitative ReactIR™

☐ LaserIR® FBRM® and PVM® Data Analysis
  Advanced Controls with MultiMax™ and the UCB

2PM-3PM:

☐ Mixing Guidelines
  Dr. Renaldo M. Machado, President, m2 technologies LLC

☐ Process Safety Testing in Early and Final Development - A Balanced Approach
  Johan Von Thielen, Research Fellow, Safety Testing Center, &U
  Advanced ReactIR® Data Analysis using iC® and MonARC®

☐ Introduction to Quantitative ReactIR™

☐ LaserIR® FBRM® and PVM® Data Analysis
  Advanced Controls with MultiMax™ and the UCB

3PM-4PM:

☐ How to Get Good Kinetics Information from Colorimetry and IR Data
  Wilfried Hoffmann, Research Fellow, Pfizer

☐ Use of ReactIR® and MonARC® for Scale-up and Campaigns

☐ Maximizing the Value of Crystallization Experiments Using Lasentec® FBRM® and PVM®

☐ Sophisticated Crystallization Studies with Automated Lab Reactors and Real-Time Analytics

4PM-5PM:

☐ Implementation of Lasentec® FBRM® in Pilot Plant and Production
  iControl™ Unites with RTCA™ and iC™

Contact, Event Manager, Zoe Fernandez (+1.410.910.8493 or zoe.fernandez@mt.com) for more information.