PTF Newsletter

Particle Technology Forum

AMERICAN INSTITUTE OF CHEMICAL ENGINEERS

Vol. 8 No. 2 Spring 2003

The PTF is an international and interdisciplinary forum that promotes information exchange, scholarship, research, and education in the field of particle technology – that branch of science and engineering dealing with the production, handling, modification, and use of a wide variety of particulate materials, both wet or dry, in sizes ranging from nanometers to centimeters. Particle technology spans a range of industries to include chemical, petrochemical, agricultural, food, pharmaceuticals, mineral processing, advanced materials, energy, and the environment. See www.erpt.org/ptf for more information.

In this issue…

LETTER FROM THE CHAIR

I am happy to see the PTF making such great progress due to the hard work of our committees and members. PTF membership has increased 20% to 420 after several years of decline. We were all happy receive our first newsletter in two years, thanks to our new editor, Christine Hrenya. The PTF had a strong showing at the 2002 World Congress on Powder Technology in Sydney, Australia and we have committed to being the lead organization for the 2006 World Congress.

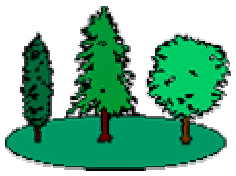
The PTF has provided a fertile nucleation site for new groups. One vigorous new forum has already been approved (Nanotechnology), and a second proposed forum has received preliminary recognition (Energetic Materials) – see page 17 for more information. Our individual sessions and topical symposia attract considerable attention and we often request extra sessions to accommodate the number of good papers submitted.

Our tutorial Web site, *Educational Resources for Particle Technology*, at **www.erpt.org,** continues to attract authors and readers, with occasional requests for consultants. We are seeking additional editorial staff members. If you want to explore the educational potential of the Web for students, faculty, and industrial practitioners, please contact Ralph Nelson at ERPTmged@aol.com or 205 Mercury Road, Newark, DE 19711-3040 USA

The PTF Executive Committee has endorsed several non-AIChE meetings at which we plan to have specific recruitment activities to expand our membership (as originally envisioned) beyond the AIChE. The first event is the International Powder & Bulk Solids Technology Forum on May 5-8, 2003, in St. Charles IL The second event is PARTEC-POWTECH 2004, the International Congress of Particle Technology, in Nuremberg, Germany, March 16-18, 2004. If you are attending one of these and would like to help the PTF effort there, please contact the chair of our Membership Committee, Manuk Colakyan at colakymc@dow.com or Manager Reaction/Solids Tech, The Dow Chemical Co., P.O. Box 8361, So. Charleston, WV 25303.

– Dr. Ralph Nelson, PTF Chair

PTF Newsletter To Go Electronic



In an effort to get the important news to you quicker (with the added benefits of reduced printing costs and more trees on the planet!), this will be the last version of the newsletter in which a hard copy will be sent to all members. By default, all future newsletters will be sent as a .pdf attachment to the e-mail addresses which AIChE has on file for PTF members.

If you would prefer to continue receiving a hard copy of the newsletter instead of the electronic version, please send a note to this effect to the following address:

Anette Ngijol
Local Sections & Divisions/Forums Staff Associate
AIChE
3 Park Avenue
New York, NY 10016

Also, for PTF members who do not have an email address listed in the AIChE database (or if the email address is not currently valid), hard copies of the newsletter will be sent to the mailing address on file.

Call for PTF Award Nominations

All Awards nomination packages should be sent to Prof. Alan Weimer, Department of Chemical Engineering, 1111 Engineering Drive, University of Colorado, Boulder, CO 80309-0424 (phone: 303-492-3759; FAX: 303-492-4341; e-mail: alan.weimer@colorado.edu). The Awards include (1) The Fluidized Processes Recognition Award, (2) PTF Forum Award, (3) Lectureship Award in Fluidization, (4) Thomas Baron Award in Fluid-Particle Systems, and (5) Best Ph.D. in Particle Technology Award. **All nomination packages are due by April 1, 2003.** See the following web site for specific information on the awards:

http://www.erpt.org/ptf/awards.htm

PTF Election Results

Elections of representatives by mail ballot of the members changed the Executive Committee as noted below. We thank all candidates for their willingness to serve, we congratulate the winners, and we express our deep appreciation for the time and energy expended by those who have completed their terms on the Board.

Position*	Person	Affiliation
New Academic Rep	**Prof. Hugo S. Caram**	Lehigh University
New Academic Rep	**Prof. Brij Moudgil**	Univ. of FL Gainesville
New Industrial Rep	**Dr. Manuk Colakyan**	The Dow Chemical Co.
New Industrial Rep	**Dr. Costas Coulaloglou**	ExxonMobil Res&Engg

* New = 2002-2006

New officers were elected by the Executive Committee during the Annual meeting of the AIChE in Indianapolis in 2002 November. Our new Chair is **Dr. Ralph D. Nelson, Jr. (**DuPont, retired), who automatically moved up from Vice Chair. Elected to two-year terms were Vice Chair **Prof. Alan Weimer (**Univ CO Boulder) – who had been Treasurer, Secretary **Prof. Hugo S. Caram** (Lehigh University), and Treasurer **Prof. Richard Turton (**WV Univ Morgantown). The committee expressed its special thanks to **Prof. George Klinzing** (Univ. of Pittsburgh), our chair for the past two years, and **Mark Bumiller** (Malvern Instr.), our secretary for the past two years. We are happy to note that our former executive committee members remain active in leadership roles to advance PTF objectives.

The PTF Web site has full contact information for the current Executive Committee and a list of all committees and their members is posted on.

2002 AIChE Annual Meeting: Snapshots

Hamid Arastoopour at the PTF Awards Dinner

Paul Mort (right) and George Klinzing (center) present the Best PhD Award to Himanshu Gupta (left) on behalf of Proctor & Gamble

Members of Area 3c planning for next year's Annual Meeting

Goran Jovanovic (left), Dimitri Gidaspaw (center and Isaac Gamwo (right) at PTF Awards dinner

Sheldon Friedlander (left) and L.-S. Fan (right) at PTF Awards dinner

George Klinzing (right) presents the Thomas Baron Award in Fluid-Particle Systems to Darsh Wasan

2003 AIChE Annual Meeting: Topical

November 16-21, San Francisco Hilton & Towers, San Francisco, CA
URL: http://www.aiche.org/conferences/annual/

Topical Conference: Engineered Particle Systems: Synthesis, Processes and Applications	
Session Title	**Chair, Chair Email; Co-Chair, Co-Chair Email**
[T4001] - Population Balance Modeling in PF Processes: Nucleation, Aggregation and Breakage Kernels	Richard B McClurg, mcclurg@cems.umn.edu; Roger Place, rogerplace@compuserve.com
[T4002] - Structural Models of Complex Particle Agglomerates and Assemblages	Priscilla J Hill, phill@che.msstate.edu; Jan Sefcik, sefcik@tech.chem.ethz.ch
[T4003] - Structure-Property Relationships of Engineered Particles for Performance and Processibility	William Kelly, william.j.kelly@villanova.edu; Wendelin J Stark, stark@ivuk.mavt.ethz.ch
[T4004] - Characterization of Engineered Particles	Mark Bumiller, Mark_Bumiller@malvernusa.com; Donald L Feke, dlf4@po.cwru.edu
[T4005] - Surfactants in Particle Formation Processes from Liquid or Slurry	Patrick T Spicer, spicer.pt@pg.com; Sridhar Desikan, sridhar.desikan@bms.com
[T4006] - Gas Phase Synthesis of Particles: In Memory of Phil Morrison	Sotiris Pratsinis, pratsinis@ptl.mavt.ethz.ch; George Fotou, george_fotou@cabot-corp.com
[T4009] - Fundamentals of Fluidization and Fluid Particle Systems	L.S. Fan, fan@che.eng.ohio-state.edu; Bob Pfeffer, pfeffer@adm.njit.edu
[T4010] - Turbulent Fluidization	Manuk Colakyan, colakymc@dow.com; S.B. Reddy Karri, rkpsri@ix.netcom.com
[T4011] - Circulating Fluidized Beds and Their Applications	Ying Wang, Ying-PhD.Wang@USA.dupont.com; Behzad Jazayeri, behzad.jazayeri@fluor.com
[T4012] - Gas-Liquid-Solid Fluidization	Goran Jovanovic, goran@che.orst.edu; Isaac K Gamwo Gamwo@netl.doe.gov
[T4013] - Novel Instrumentation Techniques for the Characterization of Gas-Solid Systems	Tom Blake, blake@ecs.umass.edu; Steve Tallon, s.tallon@irl.cri.nz
[T4014] - Novel Fluidized Bed Applications	Ray Cocco, rcocco@dow.com; Mel Pell, melpell@del.net
[T4015] - Combustion in Fluidized Bed Systems	T.C. Ho, hotc@hal.lamar.edu; Wen-Ching Yang, wen.c.yang@siemens.com
[T4016] - Computational and Numerical Approaches in Particle Flows	Pedro E Arce, arce@eng.fsu.edu; Jennifer S. Curtis, jlds@ecn.purdue.edu
[T4017] - Fine Particle Fluidization: Flow and Fluidization of Nanoparticles	Al Weimer, alan.weimer@colorado.edu; Bob Pfeffer, pfeffer@adm.njit.edu
[T4018] - Agglomeration, Granulation and Novel Fluidized Bed Applications	Gabriel Tardos, Tardos@ChE-mail.Engr.CCNY.CUNY.Edu; Rebecca L Carrier, rebecca_carrier@groton.pfizer.com
[T4019] - Hydrodynamics of Solids Transfer Systems	Ted Knowlton, tmkpsri@ix.netcom.com; Reza Mostofi, mostofi@iit.edu
[T4020] - Discrete Element Modeling & Molecular Dynamics for Particulate Systems	Joseph McCarthy, mccarthy@engrng.pitt.edu; Silvina Tomassone,silvina@sol.rutgers.edu
[T4021] - Dynamics and Modeling of Particulate Systems	Ben Glasser, bglasser@sol.rutgers.edu; Richard B McClurg, mcclurg@cems.umn.edu

[T4022] - Solids Handling and Processing	Kerry D Johan son, kjohanson@erc.ufl.edu; James L Davis, davis.jl.2@pg.com
[T4023] - Electrostatic Effects and Dust Explosions	Konanur Manjunath, kmanjunath@dow.com; Hugo S. Caram, HSC0@Lehigh.edu
[T4024] - Mixing and Segregation in Particulate Systems	Clive Davies, c.davies@irl.cri.nz; Celia N Cruz, celia_cruz@merck.com
[T4025] - Process Monitoring and Control of Particulate Processes	Frank J Doyle, doyle@engineering.ucsb.edu; Paul R Mort, mort.pr@pg.com
[T4026] - Wet and Dry Comminution Processes for the Production of Fine Particles	Wolfgang Peukert, W.Peukert@lfg.mw.tu-muenchen.de; Bertrum Diemer, r-bertrum.diemer@usa.dupont.com
[T4027] - Scale Up of Particulate Processes	Shrikant Dhodapkar, sdhodapkar@dow.com; George E Klinzing, klinzing@provost.pitt.edu
[T4029] - Molecular Self Assembly of Nanoparticles	Silvina Tomassone, silvina@sol.rutgers.edu; Agnes Ostafin, aostafin@nd.edu
[T4030] - Liquid Phase Synthesis of Nanomaterials and Particles	Michael T Harris, mtharris@ecn.purdue.edu; Stephen E Rankin, srankin@engr.uky.edu
[T4031] - Fundamentals of Chemical Mechanical Polishing	George Fotou, george_fotou@cabot-corp.com; Rajiv Singh, rsing@mse.ufl.edu
[T4033] - Separation Processes for Nanoparticles	Yangchuan Xing, xingy@umr.edu; Karsten Keller, Karsten.Keller@USA.dupont.com
[T4034] - Nanoscale Sensing for Biological and Environmental Applications	Sheryl H Ehrman, sehrman@eng.umd.edu; Vadim V Guliants, Vadim.Guliants@UC.EDU
[T4035] - Nanoparticle Formation for Electronic and Optical Applications	Mark T Swihart, swihart@eng.buffalo.edu; Vadim V Guliants, Vadim.Guliants@UC.EDU
[T4036] - Advances in Nanostructured Ceramic Films	Vadim V Guliants, Vadim.Guliants@ UC.EDU; Jorge E Gatica, j.gatica@csuohio.edu
[T4037] - Panel Discussion on Education in Particle Technology	Christine Hrenya, hrenya@colorado.edu; Ralph D Nelson, ERPTmged@aol.com
Shared With Other Topicals	
[T1005] - Solids Handling in Food and Pharmaceutical Industries (Compaction, Tabletting, Matrix)	Ecevit Bilgili, ebilgili@erc.ufl.edu; Dafni G Bika, dafni_bika@merck.com
[T1006] - Fluid Particle Interactions in the Pharmaceutical Industry	Michael Mackaplow, michael.b.mackaplow@abbott.com; Fernando J Muzzio, muzzio@sol.rutgers.edu
[T1007] - Nanoparticles for Drug Delivery	Mark Bumiller, MarkBumiller@malvernusa.com; Yu Cheng, yu_cheng@merck.com
[T1008] - Coating and Encapsulation in Pharmaceutical Processes	Richard Turton, riturton@mail.wvu.edu; Maryam Moaddeb, maryam_moaddeb@merck.com
[T1010] - Supercritical Fluids for Food and Pharmaceuticals	Rajesh Dave, dave@NJIT.EDU; Michael A Matthews, matthews@engr.sc.edu

AIChE Courses in Particle Technology

Each year, AIChE offers over 80 Professional and Technical Training courses, several of which cover topics in particle technology. These courses are taught by industry experts at selected sites around the country. For more information, see http://www.aiche.org/education

WCPT5

Announcing…

World Congress on Particle Technology 5

Orlando, Florida – USA
Walt Disney World
April 23-27, 2006

Epcot Center

Orlando

Every four years particle technologists from around the globe gather to share the results of their research and to become better acquainted. At the WCPT4 meeting in Sydney Australia in July 2002 PTF chair George Klinzing presented a proposal that WCPT5 be held in Orlando FL in the last week of April 2006. The proposal was accepted, and George was named Chairman. Shrikant Dhodapkar has been named Vice Chair and Ralph Nelson Technical Program Chair (with Vice Chairs Jingxu Zhu from Canada and Jose Angel Sorrentino from Venezuela). AIChE will arrange for meeting facilities and manage advertising and registration. WCPT4 was a fine event, and you should reserve the end of April in 2006 for attending WCPT5. Bring the family; the hotel is adjacent to Disney World.

Topics

- Particle and bulk powder characteristics
- Particle Design, New Technologies and Industrial Applications
- Powder Handling and Multi-phase Flow
- Solid-Fluid Separation Processes
- Education

Abstract Deadline: September 1, 2005

For more information, contact

George Klinzing
826 Cathedral of Learning
University of Pittsburgh
Pittsburgh, PA 15260
412-624-0784 phone
412-624-4618 fax
klinzing@engr.pitt.edu

Ralph Nelson
Educational Resources for Particle Technology
205 Mercury Road
Newark, DE 1971-3040
302-239-0409
ERPT@aol.com

PARTEC 2004, March 16-18
Nuremberg, Germany

A premiere international Particle Technology meeting takes place every three years in a relaxed atmosphere in Nuremberg, in the heart of Bavaria, Germany, attracting more than 18,000 scientists and engineers from industry and academia in two concurrent forums:

PARTEC covers the latest advances in particle science and engineering while POWTECH hosts the leading world exhibition of particle technology equipment and processing industries.

Topics

Bulk Solids Technology, Grinding/Classification, Gas Cleaning, Safety
Fluidization Technology, Transportation, Multiphase Flow / CFD
Highly Concentrated Suspensions and Pastes, Dispersion of Powders
Powder and Particle Characterization/Handling, Process Control (in- / off-line)
Particles in Life Sciences: Pharma, Food, Cosmetics
Emulsion / Dispersion, Agglomeration, Crystallization / Precipitation
Particulate Systems, Foams, Ceramics, Toners, Structured materials
Colloids, Aerosols, Interfacial Interactions, Powder Coating
Nanoparticles: Characterization, Kinetics, Synthesis, Application/Handling Nanoscale Materials for Electronic and Chemical Applications

The fascinating new field of nanotechnology is integrated into PARTEC as an innovative technology. Nanotechnology is in direct connection with classic particle technology and it is more than a continuation from "micro to nano". Nanotechnology is a new challenge and PARTEC meets nano!

Papers dealing with the above aspects of particle technology are welcome.

Features

World class keynote lectures
Cutting edge oral presentations followed by open discussion
Poster Evenings with Beer & Sausages

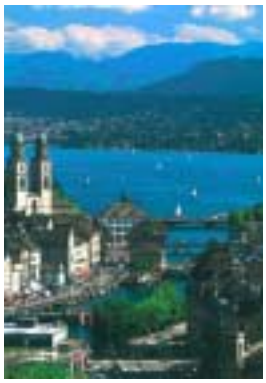
Abstract deadline: May 1, 2003
Notification of abstract acceptance ~ July 1, 2003
Manuscripts (4 pages) camera-ready: November 15, 2003

For additional information please contact:
Prof. S.E Pratsinis or Dr. Georg Barthelmes, ETHZ Particle Technology Laboratory, Sonneggstr. 3 ML F26, CH-8092 Zürich, Switzerland.
Tel. +41-(0)1-632-3952; Fax -1595 www.ptl.ethz.ch/partec2004/

ETH Short Course: Modelling & Computation at Multiphase Flow

March 24-28, 2003

hosted by the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland.



Part I: Bases

Part IIA: New Reactor Systems and Methods

Part IIB: Computational Multi-Fluid Dynamics (C*M*FD)

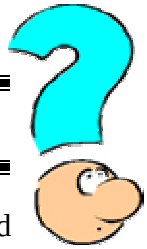
The three modular courses contain coordinated, comprehensive series of lectures by foremost experts in their fields. Part I offers to practicing engineers and researchers a condensed and critical view of present fundamental knowledge and trends with emphasis on the modeling and computational aspects of multiphase flows. The *New Reactor Systems and Methods* module reviews the most recently proposed advanced reactor system designs (such as those in Generation IV) and introduces the state-of-the-art and beyond modelling and simulation methods. The module on *Computational Multi-Fluid Dynamics (CMFD)* reflects the growing interest in the application of CFD techniques to multi-phase flows. The courses aim at an interdisciplinary transfer of knowledge between the various industries for which multi-phase flows are important (power, nuclear, process, cryogenics, petroleum, etc.).

Course language: English

Lecturers: S. Banerjee, M.L. Corradini, G. Hetsroni, G.F. Hewitt, M. Ishii, G. Tryggvason, G. Yadigaroglu and S. Zaleski.

For further information: Prof. G. Yadigaroglu
ETH-Zentrum/CLT, CH-8092 Zurich, Switzerland
tel.: +41-1-632.4615, fax: +41-1-632.1166
e-mail: yadi@ethz.ch, http://www.lkt.mavt.ethz.ch/courses.html

"Know Floe's Korner"



"Know Floe's Korner" is a contribution from the members of Group 3c (Solids Handling and Processing). The objective of this section is to share their industrial learning experiences through a variety of articles and case studies. Please send your comments to Shrikant Dhodapkar at sdhodapkar@dow.com.

Top Ten Tips for Reliable Design & Operation of Pneumatic Conveying Systems

Lyn Bates, Shrikant Dhodapkar, George Klinzing

1. Allow a 'reasonable' horizontal conveying length, (15 to 20 pipe diameters), before the first bend to allow the bulk material to accelerate. Use of flexible hose at the pickup should be kept to minimum. Excessive length of flexible hose, often in the form of a coil, is the worst pickup pipe configuration. Inability to provide proper configuration at the pickup will result in plugging condition at gas velocities higher than saltation velocity.
2. Avoid conveying line layout with bends or elbows placed back to back. This will inevitably causes excessive pressure drop and premature line plugging.
3. Consider stepping conveying lines (increasing the pipe diameter) to prevent excessive velocity at the end of the line. Be sure to maintain the minimum required Froude number at the step location, otherwise the material will salt out of the suspension. Properly stepped systems result in more efficient systems with lower degradation and wear. Using ISO pipes or tubes allows for more choices in diameters.
4. Conveying lines should not be routed like utility (compressed gas / steam) lines which follow the contours of a building. Minimizing the number of bends or directional change results in higher capacity, lower degradation, less erosive wear and more reliable flow.
5. Electrostatics effects in conveying systems can be minimized by increasing the relative humidity of the conveying air to more than 70%.
6. 'More air' can be 'Less transfer capacity' in dilute phase systems. Larger solids and gas frictional losses caused by higher gas velocities can absorb more energy than the extra input of energy. There is an optimum gas flow rate for a given lean phase flow system.
7. Install sufficient ports or couplings in the systems for pressure measurement during troubleshooting. Pressure measurement is a convenient method to measure the pulse of a conveying system. Take some time to generate the base line data for an existing conveying system. It comes in handy for future troubleshooting.
8. Proper venting of rotary airlock/feeder in a positive pressure system is critical for reliable operation. Air leakage due to clearances and returning pockets can result in reduced flow or unsteady feed rate. The leakage can be vented in a number of ways. The vent system should be designed much akin to a conveying system with sufficient gas flow and minimal bends.
9. Product damage and wear at bends is very material dependent. Blind Tee's usually have much merit, but cause a greater pressure drop than long radius bends. Mitered elbows can be a good compromise in some cases.
10. Minimum conveying velocity is a function of conveying rate. Make sure that the gas velocity at the pickup is greater than the saltation velocity at the highest solids flow rate. Safety margin must be allowed for non-optimal line configuration at the pickup (short acceleration length, bends etc.)

Upcoming Conference Calendar

2003

International Powder & Bulk Solids Technology Forum

May 5-8, 2003, Pheasant Run Resort & Conference Center, St. Charles, IL

Website: http://www.powdertechforum.com

The 11th International Conference on Fluidization: Present and Future for Fluidization Engineering

May 9-13, 2003, Sorrento (Napoli), Italy

Co-Chairs:

Prof. Umberto Arena, Seconda Universita degli Studidi Napoli, email: umberto.arena@unina2.it

Dr. Riccardo Chirone, Consiglio Nazionale delle Ricerche, email: chirone@irc.na.cnr.it

Prof. Michele Miccio, Università degli Studi di Salerno, email: mmiccio@unisa.it

Prof. Piero Salatino, Università degli Studi di Napoli Federico II, email: salatino@unina.it

Abstract Deadline: passed
Website: http://www.engconfintl.org/4afbody.html

Computational Fluid Dynamics in Chemical Reaction Engineering III

May 25-30, 2003, Davos, Switzerland

Chair:

Professor Rodney O. Fox, Iowa State University, email: rofox@iastate.edu

Co-Chair:

Professor J.A.M. (Hans) Kuipers, University of Twente, email: J.A.M.Kuipers@ct.uwente.nl

Abstract Deadline: December 31, 2002
Website: http://www.engconfintl.org/3af.html

4th International Conference for Conveying and Handling of Particulate Solids

May 27-30, 2003, Hotel Inter-Continental, Budapest

Chair:

Prof. János Gyenis, University of Kaposvár, email: gyenis@mukki.richem.hu

Co-Chair:
Dr. János Szépvölgyi, University of Kaposvár, email: szep@mukki.richem.hu

Abstract Deadline: passed
Website: www.partconf2003.hu

CRE IX: Chemical Reactor Engineering: Meeting the Challenges for New Technology

June 29-July 4, 2003, Quebec City, Quebec, Canada

Chairs:
Professor Hugo de Lasa, University of Western Ontario, email: hdelasa@eng.uwo.ca

Professor Franco Berruti, University of Western Ontario, email: berruti@eng.uwo.ca

Abstract Deadline: passed
Website: http://www.engconfintl.org/3ak.html

2nd International Conference on Computational Methods in Multiphase Flow

November 3-5, 2003, Santa Fe, NM

Chairs:
A. A. Mammoli, University of New Mexico, email: mammoli@ me.unm.edu

C. A. Brebbia, Wessex Institute of Technology, email: wit@wessex.ac.uk

Abstract Deadline: ASAP
Web Site: http://www.wessex.ac.uk/conferences/2003/multiphase03/index.html

AIChE Annual Meeting: PTF Topical Conference on "Engineered Particle Structures: Manufacture, Processing, and Characterization"

November 16-21, 2003, San Francisco, CA

Chairs:
Michael F. Malone, University of Massachusetts, email: aiche03@ecs.umass.edu

Maria Burka, National Science Foundation, email: mburka@nsf.gov

Abstract Deadline: April 21, 2003

Website: http://www.aiche.org/conferences/annual/

Southern Workshop on Granular Materials

December 10-13, 2003, Pucón, Chile

Organizing Committee:
Marcel Clerc, Universidad de Chile
Patricio Cordero, Universidad de Chile
Fernando Lund, Universidad de Chile
Francisco Melo, Universidad de Santiago
Rodrigo Soto, Universidad de Chile

Website: http://www.dfi.uchile.cl/swgm03/

2004

AIChE Annual Meeting

November 7-12, 2004, Austin Convention Center, Austin TX

(details will be available in February 2004)

PARTEC 2004

March 16-18, 2004, Nuremberg, Germany

Executive Committee:

Sortiris Pratsinis, ETH, Zurich
H. Cremer, GVC (past chair)
A. Gutsch, Degussa (chair 2007)
W. Peukert, TU München (chair 2010)

Abstract Deadline: May 1, 2003
Website: http://www.ptl.ethz.ch/partec2004/

Gordon Conference on Granular and Granular-Fluid Flows

June 27-July 2, 2004, Colby College, Waterville, Maine

Chair:

Professor Michel Louge, Cornell University, email: michel.louge@cornell.edu

Vice-Chair:

Professor Christine Hrenya, University of Colorado, email: hrenya@colorado.edu

Website: http://www.grc.uri.edu

XXI International Congress of Theoretical and Applied Mechanics

August 15-21, 2004, Warsaw, Poland

Co-Chairmen:

Michal Kleiber, IPPT PAN, email: michal.kleiber@ippt.gov.pl

Wlodzimierz Kurnik, Technical University of Warsaw, email: wku@simr.pw.edu.pl

Abstract Deadline: January 9, 2004
Website: http://ictam04.ippt.gov.pl

AIChE Annual Meeting

November 2004, Austin, TX

(details will be available in February 2004)

2006

The Fifth World Congress on Particle Technology

April 23-27, 2006, 2006, Orlando FL

Chairs:

George Klinzing, University of Pittsburgh, email: klinzing@engr.pitt.edu

Ralph Nelson, Educational Resources for Particle Technology, email: ERPT@aol.rom

Abstract Deadline: September 1, 2005

Annual AIChE Meeting

November 12-17, San Francisco Hilton, San Francisco, CA

(details will be available in February 2004)

Officer and Committee Listing

Officers:

Chair 2002-2004: Dr. Ralph D. Nelson, erptmged@aol.com, 302-239-0409
Vice-Chair 2002-2004: Professor Alan Weimer, alan.weimer@colorado.edu, 303-492-3759
Immediate Past Chair 2000-2002: Prof. George Klinzing, klinzing+@pitt.edu, 412-624-0784
Secretary 2002-2004: Professor Hugo Caram, hsc0@lehigh.edu, 610-758-4259
Treasurer 2002-2004: Prof. Richard Turton, turton@cemr.wvu.edu, 304-293-2111, ext. 2145

Liaisons:

Academic 2004-2006: Professor Hugo S. Caram, hsc0@lehigh.edu, 610-758-4259
Academic 2004-2006: Professor Brij Moudgil, BMoudgil@erc.ufl.edu, 352-846-1194 x 225
Academic 2000-2004: Professor Richard Turton, turton@cemr.wvu.edu, 304-293-2111
Academic 2000-2004: Professor Thomas R. Blake, blake@ecs.umass.edu, 413-577-6606
Industry 2004-2006: Professor Manuk Colakyan, colakymc@dow.com, 304-747-4580
Industry 2004-2006: Dr. Costas Coulaloglou, costas.a.coulaloglou@exxonmobil.com
Industry 2000-2004: Dr. Paul Mort, mort.pr@pg.com, 513-627-8876
Industry 2000-2004: Dr. Shrikant Dhodapkar, sdhodapkar@dow.com, 979-238-7940
AIChE-CTOC: Esin Gulari, egulari@nsf.gov, 703-292-7026
AIChE Staff Associate: Mr. Richard Green, richg@aiche.org, 212-591-8677

Standing Committees (Chairs):

Awards Committee 2002-2004: Professor Alan Weimer, alan.weimer@colorado.edu, 303-492-3759
Membership: Dr. Manuk Colakyan, colakymc@ucarb.com, 304-747-4580
Newsletter Editor: Professor Christine Hrenya, hrenya@colorado.edu, 303-492-7689
Educational Resources for Particle Technology: Prof. George Chase, gchase@uakron.edu, 330-972-7943

Technical Programming Area Liaison and Group Chairs

The main focus of the PTF has been arranging for the extensive technical programs at the annual AIChE meeting in November. A lot of hard work goes into developing session themes, negotiating for sufficient time and reasonable scheduling of the sessions, attracting and screening papers, finding and training new session chairs, and making sure the whole process flows smoothly. Shrikant Dhodapkar, our Area 3 Liaison, attends an all-day session each January to plan the technical sessions at the Annual Congress and to arrange for co-sponsored sessions with other Divisions and Forums. Participation in this process is excellent training in and proof of management capabilities. The leaders selected this fall were

Position	Person	Affiliation
Area 3 Liaison	**Dr. Shrikant Dhodapkar**	The Dow Chemical Co.
Area 3 Vice Liaison	**Dr. Ralph D. Nelson, Jr.**	DuPont, retired
Group 3a – Particle Production and Characterization		
Chair	**Dr. Paul Mort**	Procter & Gamble Co. ITC
Vice Chair	**Prof. Rajesh N. Dave**	New Jersey Inst. of Techn
Group 3b – Fluidization and Fluid-Particle Systems		
Chair	**Dr. Manuk Colakyan**	The Dow Chemical Co.
Vice Chair	**Prof. T.C. Ho**	Lamar University
Group 3c – Solids Flow, Handling, and Processing		
Chair	**Prof. George Klinzing**	Univ. of Pittsburgh
Vice Chair	**Dr. Clive Davies**	Industrial Research Ltd
Group 3d - Nanoparticles		
Chair	**Prof. Rajesh N. Dave**	New Jersey Inst. of Techn
Vice Chair	**George Fotou**	Cabot, Inc
Group 3e – Energetic Materials		
Chair	**Bruce Cranford, P.E**.	EMF Co.
Vice Chair	**Chester Clark**	Naval Surface Warfare Center

What is this new Group 3e?

A group interested in establishing a new Forum on Energetic Materials (such as explosives) asked the PTF Executive Committee for help in getting two technical sessions at the 2004 Annual Meeting. We petitioned for a new programming group and this was granted by the National Programming Committee.

Complete mailing addresses can be found @ http://www.erpt.org/ptf/officers.htm

Report from the Treasurer

The balance of PTF as of 12/31/02 was $13,999. The ending balance on 12/31/01 was $12,173. Income to PTF in 2002 (primarily dues and dinner payments) was $8,210. Expenses included $2,170 for funds to support the World Congress in Sydney, $2,000 to support graduate students to Sydney in exchange for their time at the PTF booth during the conference, $932 for the printing and mailing of the newsletter, $600 for Poster Awards to students at the 2002 Annual Meeting in Indianapolis, and $683 to reimburse travel expenses associated with PTF/AIChE business. One key consideration is that because of a mistake in billing, PTF has not been billed for the maintenance of the PTF web site. This is being corrected and PTF will start being billed for this service (but not required to back pay). The Particle Technology Income Statement for 2002 was sent to AIChE Headquarters on January 22, 2003. The PTF bank account in Boulder, CO will be closed and all remaining funds will be wired to the new PTF Treasurer's (Richard Turton) bank account in Morgantown, WV.

– Professor Al Weimer, Outgoing Treasurer

From the Editor's Desk

The *PTF Newsletter* is published twice a year as a vehicle for communication for all PTF members. PTF members are encouraged to send in news and information of general interest to PTF members. Please address your communication to

Professor Christine M. Hrenya
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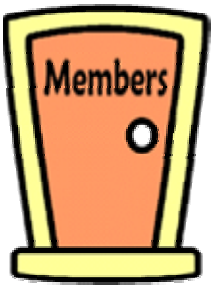
Boulder, CO 80309-0424
Tel: (303) 492-7689; Fax: (303) 492-4341
email: hrenya@colorado.edu

Advertisements may also be placed in the newsletter. The rates on a per issue basis are:

1/4 page $40 1/2 page $60 Full page $110

Membership Information



YES, I am interested in the Particle Technology Forum. Please accept my request for membership.

Name _____

Title _____

Company _____

Address _____

City _____ State_____ Zip _____ Country _____

Phone _____ Fax: _____

Are you an AIChE member? Yes ___ No ___ Member # _____

Other Society Affiliations? _____

Credit Card Information Visa _____ Master Card _____

Number _____ Exp. Date _____

Membership rates

____ $10 AIChE Member

____ $20 Engineering/Scientific Society Member

____ $65 Non-Society Member

____ $5 Student Signature _____

Checks must be payable to American Institute of Chemical Engineers. International money orders are acceptable. Check must be drawn on a U.S. bank or draft on a foreign bank with a New York City branch.

Mail to: **AIChE, Particle Technology Forum**
Attn: **Document Processing, 3 Park Avenue, New York, NY 10016**

Moving? New E-mail?

Help us get PTF news to your new address by filling in and e-mailing a change of address form. See the PTF web page at

http://www.erpt.org/ptf/addrchng.txt