The PTF Newsletter

ORGANIZING SESSION FOR THE PTF: A GROUP EFFORT

There are many reasons to give a presentation at the AIChE Annual Meeting. Perhaps you have some research that needs validation among your peers, or you found an interesting concept that needs to permeate through the scientific community, or there is a concept or direction you feel needs more attention in the scientific community. All are good reasons to spend the time in formulating, formatting and delivering a paper. To do this though, a team of PTF volunteers is working behind the Call for Papers and the Annual Meeting to provide you the opportunity to present your work.

It all starts a year before the Annual Meeting. During that previous Annual Meeting, each area has an area meeting, typically after one of the morning sessions. Here, the chair and co-chair of that area solicit for new session titles, ratify existing titles, and remove some of the more unpopular sessions. If you feel a research area is deficient in the session lineup and deserves its own sessions, you need to drive this new session at these meeting or at the very least contact the chair of that area before the his or hers area meeting.

Next, chairs and co-chairs for each session are solicited. As a chair or co-chair of a session, you have the responsibility of providing a session description to the chair of the area, helping to solicit for papers, organizing the sessions via Confex (AIChE Database Server for the Annual and Spring Meetings), organizing the session timing and helping to solicit for the extended abstracts. At the meeting, the chair and co-chair need to confirm that all of their presenters will be at the meeting and ready to present.

About a month after the Annual Meeting, each session description needs to be provided to the PTF Programming Officer. Our current Programming Officer is Dr. Manuk Colakyan who has spent countless hours ensuring that each Annual Meeting is a success. After that, we just have to wait for the "Call for Papers."

This year the Call for Papers starts January 30th and ends May 2nd. In the past, the AIChE extended this by a week, but not so anymore. In fact, it was impossible for even Manuk to add papers to Confex after the deadline. During the submission process, Manuk monitors each session in the PTF. Sessions that are filling rapidly can often be split into a second session, or the papers could be moved into a more relevant sister session within the PTF. After the deadline, the session chair and co-chair have only a few weeks to accept, transfer, or reject papers in their sessions. Notification is done automatically from Confex.

Once papers have been accepted, additional work is needed to balance out the number of papers in each session. Area chairs and cochairs insure that each session is properly represented based on the session description. In addition, sessions with fewer than four papers will be removed and the papers will either be transferred to another session (including the poster session) or rejected. Sessions with more than eight papers will have some papers moved to a more relevant but less populated session, or the session itself will be split into two sessions. It is up the session chair and co-chair if a session should be split, or the papers just moved into other sessions. Session chairs and co-chairs also need to list the order of the presentations and the time allocated for each presentation. Also, if a session chair or cochair sees a paper that may deserve more time, they also set up the first paper to be a keynote with extra allotted time.

With each session properly populated, the Programming Officer organizes each session to a calendar date. Manuk will cluster sessions for each area as close to each other as possible. Sessions in Group 3A may be mostly on a Monday, Tuesday, or Wednesday while sessions in Group 3B may be on Tuesday, Wednesday, and/or Thursday. There are some constraints. Grouping of sessions are organized such that everyone in the PTF would have some sessions on or close to Wednesday. We are trying to make

Call for Proposals to Present AIChE 2012 Annual Meeting

CFP OPEN

Submissions for New Proposals to Present is Open!

New Submissions may be entered until:
Wednesday, May 2, 2012 at 11:59pm (EST)

Existing Submissions may be edited until:
Wednesday, May 2, 2012 at 11:59pm (EST)

http://aiche.confex.com/aiche/2012/cfp.cgi

availability of the PTF Award Sessions and the subsequent PTF Dinner as convenient as possible. No session should overlap the PTF Award Session on Wednesday afternoon. The PTF Poster Session needs to be on Tuesday evening. Also, some sessions need to precede other sessions within that area. For example, the Fundamentals of Fluidization Session is always first for Group 3B. We also try not to schedule any sessions for Friday.

The next challenge to working with the AIChE is getting the room sizes and locations for each session. We try to get sessions for each area located close to each other. No one likes running several blocks for that odd paper you really wanted to see. Room sizes need to be appropriate. Some sessions need more seating than others and that needs to be identified with the AIChE.

It takes about a month (around June) of organizing the schedule and rooms for the PTF. Sometimes we don't get what we want. Our organization can only make suggestions to the AIChE. The AIChE has thousands of papers to organize and the projected attendance count needs to be balanced out over the week or at least up to Friday. Fortunately "horse trading" is allowed and Manuk is very good at this.

In July or August, the AIChE needs all the papers and sessions to be organized and ready for printing. Changes in paper titles, author listings, and session chairs and cochairs all have to be finalized by this time. Once the AIChE puts it all in print, it stays in print, even on the web.

About a month before the meeting, the chair and co-chair of each session need to contact each author and ensure that they will be presenting in their session. This is very important. With enough time, other papers can be substituted for the cancelled paper. Information on the paper may not make it to Session Guide or even the web. Many of our colleagues have an ample amount of material that they would be willing to provide for an impromptu presentation. There is nothing worse for a session chair or cochair to do than to announce to their audience that there will be a brief 20 to 30 minute break in the session line up. More than half of the audience will leave and not return.

So, a lot of work is required from a few individuals and a fair amount of work is needed from many individuals. That is how the PTF provides the sessions where you get to present your work. Now if we could only get those digital projects to sync with our computers.

LETTER FROM THE CHAIR: EXCITING CHANGES WITH THE PTF AWARD

I would like to take this moment to announce the PTF's newest award called the PTF Service Award. This is not going to be an automatic award for the latest past chair or an award that will be given on an annual basis. Instead, this award is reserved for those individuals who tirelessly help the PTF accomplish its mission and vision year after year. It will be going to those individuals who, with their help, have made a significant and long-term impact to the PTF.

The award will be managed much like the other PTF awards. The same award form will be used as with the other awards and three letters of support will be needed as with the other awards. The only difference is that this award will not be given every year. It will only be given when a nomination has been submitted and when that nomination meets the qualifications.

Next, we have a new and exciting sponsor for the PTF Best PhD Award. The PTF Executive Committee has approved renaming of the Best PhD award as the "George Klinzing Best PhD Award". This award recognizes an outstanding PhD in any discipline in the physical, biomedical or engineering sciences, with primary focus on particle science and engineering. The award will be sponsored by an endowment set up at the University of Pittsburgh by his former graduate students. By renaming the award in Prof. George Klinzing's name, we appropriately honor his scholarship, long term contributions to the field of particle technology & education, and the mentorship that he has provided over many decades.

Professor George Klinzing is the Vice Provost for Research (1995-present) and Professor of Chemical Engineering at the University of Pittsburgh (1966-present). He earned his B.S. degree in Chemical Engineering from the University of Pittsburgh in 1959 and was awarded a Ph.D. in Chemical Engineering from Carnegie Mellon University in 1963. He has spent his career researching particle technology related areas with special expertise in gas-solid flows. He has given over 200 technical presentations at professional meetings, universities, and industries both nationally and internationally, and has advised 25 Ph.D. students and 54 M.S. students. He has authored two books on Pneumatic Conveying.

He is actively involved in fostering an environment of collaboration, counseling researchers in their innovative commercialization efforts, and overseeing policy initiatives aimed at creating fair and equitable collaboration among Pitt researchers, industry, and government. He is a Fellow of the American Institute of Chemical Engineers, Fellow of the American Association for the Advancement of Science and the

Whiteford Energy Professor. His other professional affiliations include American Society for Engineering Education, International Freight Pipeline Society and Sigma Xi.

Prof. Klinzing is a recipient of the Particle Technology Forum Award (2004) and the Gary Leach AIChE Award for Leadership and Service (2006) for organizing the World Congress of Particle Technology-5 (2006).

So, if you know of an individual in the PTF that is deserving of these award, please complete the nomination packet and solicit three letters of support. One of the strengths of the PTF is that we continually recognize those who do exceptional research, and n exceptional service.

Also, don't forget that there are other awards too. The PTF has the Thomas Baron Award sponsored by Shell, the PTF Award sponsored by DuPont, and the Lectureship Award in Fluidization sponsored by PSRI. It is only from your nominations that an award can be given. PTF officers are excluded from sponsoring a nominee. Details of each of these awards can be found in this newsletter.

Ray Cocco (PTF Chair) & Shrikant Dhodapkar

OTHER PTF AWARDS

The Best PhD in Particle Technology Award recipient is **Dr. Deliang Shi** for his work at the University of Pittsburgh. Dr. Shi is currently with S.C. Johnson & Son, Inc. in Kenosha, Wisconsin.

The DuPont Particle Technology Forum Award recipient is **Prof. Daniel Rosner** of Yale University for his contributions in his relentless pursuit of non-Brownian particle deposition from high-speed flows, particle synthesis and properties and dynamics in flames and transcritical fluids.

The Shell Thomas Baron Award recipient is **Prof. Roger Bonnecaze** of the University of Texas at Austin for his contributions to particle engineering through theoretical and experimental studies of suspension, interfacial flows, particle rheology and pastes.

The Dow Chemical Fluidized Processing Award recipient is **Dr. S.B. Reddy Karri** of Particulate Solid Research, Inc. (PSRI) for his outstanding achievements and leadership in the research and development of fluidized beds and circulating fluidized beds.

The PSRI Lectureship in Fluidization Award recipient is **Prof. Jesse Zhu** of the University of Western Ontario for his contributions in powder handling, fluid-particle, and multi-phase flow systems.

2011 PTF STUDENT POSTER AWARDS

First Place

Paper 418E: "Number and size of primary particles in agglomerates from mass and mobility measurements," **Max L. Eggersdorfer**, Dirk Kadau, Hans J. Hermann, Sotris E. Pratsinis with ETH Zurich, Switzerland

Second Place

Paper 418S: "Investigating Contact Drying in a Filter Dryer: Experiments and Simulations," **Ekneet Shani**, Bodhisattwa Chaudhuri, John C. Strong with University of Connecticut and Abbott Laboratories

Third Place

Paper 418D: "The Impact of Shear Thickening Fluid Volume Fraction on the Rheological Response of a Suspension Emulsion," **Jeremy N. Fowler**, Anthony Pallanta, John E. Kirkwood, Norman J. Wagner with University of Delaware

Last Years PTF Award Ceremony

Dr. Bert Diemer with Prof. Daniel Rosner, recipient of the DuPont PTF Award

Dr. Ray Cocco, and Prof. Jennifer Curtis with Prof. Roger Bonnecaze, recipient of the Shell Thomas Baron Award

Dr. Ray Cocco and Prof. Jennifer Curtis with Prof. Jesse Zhu, recipient of the PSRI Lectureship Award

Karl Jacob with Dr. S.B. Reddy Karri, recipient of the Dow Fluidized Processing Award

KNOW FLOE'S KORNER

Active and Passive Stress States – Relevance to Silo Flow

Lyn Bates, Shrikant Dhodapkar, George Klinzing

A grasp of the differences between active and passive stresses is necessary in order to understand how bulk materials behave in storage hoppers and silos. An active stress is one that presses onto a contact surface due to the forces generated within the body of the material. If the surface were to be slightly moved away from the material, such stresses will follow and continue to act with virtually the same pressure. A passive stress is caused by the resistance offered to a bulk material against any surface that is trying to compact the mass of the product. If the surface is withdrawn slightly, this pressure ceases. A simple case to illustrate the difference is that of retaining walls for a hopper or stockpile (Figure 1). Product that is piled against the wall exerts a force caused by the horizontal stresses generated within the bulk material. If the wall is withdrawn slightly, the material will normally collapse and form a new shape pressing with a similar force. An exception may occur if the material were cohesive, in which case the pile may stand as a vertical cliff because the internal strength of the material is sufficient to contain these internal stresses.

A contrasting situation is if an attempt were made to push the walls into the pile. This would give rise to a passive resistance with a magnitude larger than the original active stress. It is easy to see that the effort required must be enough to overcome the original force pushing out and have the extra work of compressing the bulk and/or pushing up the level of the pile. Contrary to what the words 'active' and 'passive' may suggest, this example graphically indicates that passive stresses can be substantially greater that active stresses.

What generates an active stress in the first place? Well, a void gas under pressure is a classic form of an active stress. When a bulk material is delivered into a container it is usually in a dilated condition. The particles move closer together as the bulk settles into a stationary bed. Air is expressed from the voids through the remaining interstitial gaps, the escape path becoming longer as the bed depth increases. With fine particles it can be a long process for the void air pressure to come to equilibrium with the surrounding ambient atmosphere. Until this happens, the void pressure supports part of the superimposed weight of the mass, thereby delaying the particle-to-particle contact pressure from achieving its ultimate value. Initially, the particle contact forces may be so small that they can move against each other with ease, and the bulk can behave as a fluid. In these circumstances the active pressure on the wall is hydrostatic, dependent on the bed depth and the effective density of the product in this state.

With coarse materials this effect is less dramatic and short lived because the air can readily percolate through the larger void gaps. Nevertheless, there is almost invariably a temporary, declining void pressure in a recently filled bed of loose solids. The other growing and longer lasting source of active pressure is due to the particles being 'squashed' by the overburden. Any solid will tend to deform under stress, reducing in dimension in line with a compressive stress and, unless restrained, expanding to a lesser degree at right angles to the axis of the compressive stress. The ratio of this dimensional change is termed the 'Poisson ratio', and is generally of the order of 0.4. A simple compressive load of this type develops the 'major principal stress' in the bulk along with a transverse stress, which is known as the 'minimum principal stress.' The force needed to contain the 'sides' of the material to its initial position is equal to this minimum principal stress.

Now consider what occurs when a stored product slides from a parallel, body section of a hopper into the converging section (Figure 2). In the parallel section the material moves in 'bed flow' without change in cross section, so the walls need only contain the active bulk stresses, which remain virtually unchanged during this phase. Moving into the converging section, forces are exerted by the walls to compress material to a smaller cross-section. There is a resistance to this deformation requiring work input in addition to that needed to overcome the original active stresses. It is considerably more difficult to overcome the initial structural resistance to deformation than it is to continue the failure process. There is also a reduction in the containment pressure as the material approaches the final outlet. For these reasons, the severe change in stress that occurs at

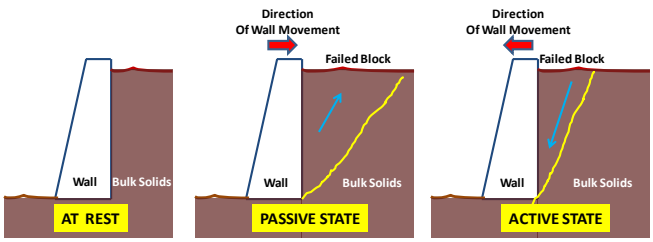

Figure 1. Lateral earth pressures exerted on retaining structure – active and passive states.

the transition point is followed by a reduced value as the material continues downwards.

In this converging section the stress pattern has radically changed from that existing before flow commenced. Originally, the greatest stress was due to the vertical pressure of material weight. Now, the maximum stress direction is across the bed, causing the cross section to reduce in width during flow. A shear force also acts on the wall boundary due to the frictional drag on the contact surface. The combination of compressive and shear stress forms a maximum principal stress direction inclined upwards from the wall surface. This stress line bends over into an arc within the bulk to meet the opposing wall at a similar angle. The magnitude of this stress diminishes as the material nears the outlet, because the material is eventually not confined at the outlet location as the material falls or is taken away. The most likely location for a stable arch to form is near the outlet, where the span is small. This will happen if the unconfined failure strength of the material in this region exceeds the stresses available to cause failure.

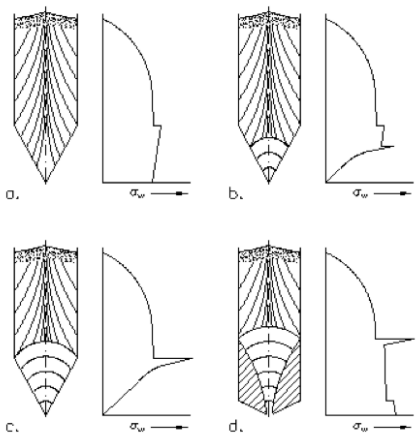

Figure 2: Sequence of fill and discharge stresses in a hopper where (a) active wall pressure acting downwards during filling process, (b) at initial stage of mass flow discharge, the section in motion incurs passive pressure from the converging walls, (c) passive state extends to transition between silo body and hopper section during mass flow discharge, and (d) the active stress remains in a funnel flow silo (unless the flow channel spreads to meet the wall to give a transitional pressure "kick").

Such a situation is more probable from first-fill condition because, as previously described, the stress required to 'switch' the state of wall stress from active to passive is much greater that the stress needed to sustain the passive stress. This situation will apply to material in the whole converging section, including the critical outlet region of smallest span, unless flow has taken place. For this reason, the Jenike method requires that a small amount of material is withdrawn from the outlet to initiate flow stresses in the region local to the outlet before the vertical stresses raised by the weight of the material being loaded develops a stronger bulk material. It is not usually important to initiate a flow field through the total converging hopper section because the span of the flow channel at the upper levels is normally greater than that of a potential arch. Flow opposing stresses within the material in this upper region are readily overcome by the large work content available from the prevailing forces when flow eventually takes place.

The stress pattern developed in the bulk during flow remains in place as flow stops. The Jenike method of hopper design is founded upon measuring this state of stress on the basis that once this flow state has been achieved, it will reliably restart again when similar circumstances re-occur, i.e. when the outlet once again allows material to escape. This is true provided the material is not allowed to stand for some time and allow the bulk to gain strength as the dilated flow condition settles to a firmer bed. Measurement of any increase in bulk strength with time under a steady compacting load is measured by 'time compaction' tests. Test samples are loaded in a static condition for an equivalent period to the time of standing without discharge taking place.

Group 3A: Particle Production and Characterization

Dr. Pavol Rajnaiak (Chair) & Prof. Rajesh Dave (Co-chair)

Session ID	Session Title	Chairs	Co-Chair	Co-Sponsor
03D01	Gas Phase Synthesis of Nanoparticles	R. Grass	K. Wegner	Group 3D
02B01	Particle Formation and Crystallization Processes from Liquids, Slurries adn Emulsions	N. Nere	D. Kayrak-Talay	Group 2B
03A03	Population Balance Modeling for Particle Formation Processes: Nucleation, Aggregation and Breakage Kernels	P. Rajnaik	R. Ramachandran	
03A04	Agglomeration and Granulation Processes	P. Narayan	M. Langroudi	
15B04	Particle Engineering as Applied to Pharmaceutical Formulations I	E. Bilgili		Group 15B
03A05	Applications of Engineered Structured Particulates	W. Ng	P. Bell	
03A06	Characterization of Engineered Particles and Nanostructured Particulate Systems	S. Conway	D. Lepek	
03C06	Characterization and Measurement in Powder Processing	C. Davies	M. Langroudi	Group 3C
03A07	Dynamics and Modeling of Particles, Crystals adn Agglomerate Formation	R. Vigil	D. Shi	
03A08	Particle Breakage adn Comminution Processes	E. Bilgili	P. HIll	
03A09	Magnetic Particle Synthesis and Properties	R. Grass	M. Langroudi	
15B09	Applications of Continuous Processing and Manufacture of Pharmaceuticals	W. Kettrhagen		Group 15B
03A10	Engineered Composite Particulate Systems for Pharmaceutical Active Ingredient Delivery	S. Conway	R. Dave	
03A12	Biomass Size Reduction	G. Liu	S. Sokhansanj	

Group 3B: Fluidization and Fluid-Particle Systems

Prof. Ah-Hyung Park (Chair) & Dr. S.B. Reddy Karri (Co-chair)

Session ID	Session Title	Chairs	Co-Chair	Co-Sponsor
03B01	Special Session to Celebrate Tom O'Brien's Career Long Accomplishments	S. Benyahia	M. Syamlal	
03B02	Fundamentals of Fluidization	S.B.R. Karri	R. Lau	
03B04	Fluidization and Fluid-Particle Systems for Energy and Environmental Applications	J. De Wilde	S. Li	
03B06	Industrial Application of Computational and Numerical Approaches to Particle Flow	T. Healy	R. Mostofi	
03B08	Circulating Fluidized Beds	M. Olivier-Coppens	A. Issangya	
03B11	Special Session to Celebrate John Chen's Career Long Accomplishimets	L-S. Fan	K. Sharma	

Group 3C: Solids Flow Handling and Processing

Prof. Kimberly Henthorn (Chair) & Dr. Ben Freireich (Co-chair)

Session ID	Session Title	Chairs	Co-Chair	Co-Sponsor
03C01	Solids Handling and Processing	K. Johanson	M. Langroudi	
03B02	Advances and Case Studies in Crystallization and Post-Crystallization Processing	M. Tsianou	B. Hook	Group 2B
03C02	Mixing and Segregation of Particles	B. Hook	W. Ketterhagen	
03C04	Dynamics and Modeling of Particulate Systems	B. Freireich	M. Tomassone	
02C06	Characterization and Measurement in Powder Processing	C. Davies	M. Langroudi	Group 3A
03C07	Drying	K. Jacob	K. Henthorn	
03C08	Handling and Processing of Solid Fuel Sources	R. Turton	G. Liu	
03D09	Handling and Processing of Nanoparticles	K. Wegner	R. Grass	Group 3D
03C10	Gas-Solid Transport and Separations	S. Dhodapkar	B. Freireich	
03C11	Panel Discussion in Solids Flow, Handling and Processing	S. Dhodapkar	J. McCarthy	

Group 3 Special Sessions

Session ID	Session Title	Chairs	Co-Chair	Co-Sponsor
03000	Particle Technology Forum Awards Lecture	R. Cocco	M. Colakyan	
03001	Particle Technology Forum Poster Session	M. Colakyan	R. Cocco	

Group 3D: Nanoparticles

Dr. Karsten Wegner (Chair) & Dr. Bjoern Schimmoeller (Co-chair)

Session ID	Session Title	Chairs	Co-Chair	Co-Sponsor
03D01	Gas Phase Synthesis of Nanoparticles	R. Grass	K. Wegner	Group 3A
03E01	Nanoenergetic Materials	E. Dreizin	J. Puszynski	Group 3E
17002	Biobased Materials I; Cellulose-Gased Materials	J.Y. Zhu	Y. Deng	Group 17
03D02	Characterization adn Modeling of Nanoparticle Systems with Pharmaceutical Applicatons	M. Tomassone	R. Dave	
03D03	Design of Nanoparticles for Energy Conversion and Storage	D. Deng	Y. Xing	
08E03	Nanoelectronic Materials and Devices	K. Ziegler	P. Clancy	Group 8E
03D04	Nanostructured Particles for Catalysis	J.R. van Ommen	K. Deshpande	
03D05	Functional Nanoparticles adn Nanocoatings on Particles I	A. Weimer	M. Tomassone	
03D09	Handling and Processing of Nanoparticles	K. Wegner	R. Grass	Group 3C

Group 3E: Energetics

Prof. Jan Paszynski (Chair) & Dr. Paul Redner (Co-chair)

Session ID	Session Title	Chairs	Co-Chair	Co-Sponsor
03E01	Nanoenergetic Materials	E. Dreizin	J. Puszynski	Group 3D
03E02	Processing and Safety of Energetic Materials	S. Prickett	J. Bolognini	
03E03	Thermophysical Properties of Energetic Materials	V. Boddu	P. Redner	
03E04	Process Scaleup Techniques	J. Salan	D. Attride	

Conference Calendar

International Symposium on Discrete Element Modelling of Particulate Media
March 29-30, 2012, Birmingham, UK
http://www.birmingham.ac.uk/schools/chemical-engineering/news/dem-symposium.aspx

21st International Conference on Fluidized Bed Combustion
June 3-6, 2012, Naples, Italy
http://www.21fbc.org/

Nanotech
June18-21, 2012, Santa Clara, CA
http://www.techconnectworld.com/Nanotech2012/

5th Asian Particle Technology Symposium (APT2012)
July 2-5, 2012, Singapore
http://rpsonline.com.sg/apt12/index.html

8th European Solid Mechanics Conference
July 9-13, 2012, Graz, Austria
http://www.esmc2012.tugraz.at/

23rd International Congress of Theoretical and Applied Mechanics
August 19-24, 2012, Beijing, China
http://www.ictam2012.org/

Southern Workshop on Granular Materials 2012
December 4-7, 2012, Puerto Varas, Chile
http://www.dfi.uchile.cl/~granular12/granular12/Home.html

9th International Conference on CFD in the Minerals and Process Industries
December 10-12, 2012, Melbourne, Australia
http://www.cfd.com.au/cfdconf/

2012 AIChE Annual Meeting
Pittsburgh Convention Center
Pittsburgh, PA
October 28 - November 2, 2012

Gas-Liquid-Solid 11 (GLS-11)
A Special Symposium for th 9th World Congress of Chemical Engineering
Coex, Seoul, Korea
August 19 - 22, 2012
http://www.wcce9.org/program/program04.asp?sMenu=pro3

2013 AIChE Annual Meeting
San Francisco Hilton
San Francisco, CA
November 17 - 22, 2013

The 7th World Congress on Particle Technology
May 19-22, 2014, Beijing, China
http://www.wcpt7.org

NEW BOOKS
Heat Transfer in Fluidized Beds
By: O. Molerus and K.-E. Wirth
ISBN: 0 412 60800 6

Computational Techniques: The Multiphase CFD Approach to Fluidization and Green Energy Technologies
By: Dimitri Gidaspow and Veeraya Jiradilok
ISBN: 978-1-60876-024-4

The PTF is now sponsoring job searches on the web. Need a career? Need an engineer? Go to http://www.aicheptf.org.

Anyone can recognize good work Here is your chance to do so

George Klinzing Best PhD Award (Sponsored by Pittsburgh Alumni)

•For best dissertation in particle technology

Thomas Baron Award (Sponsored by Shell Global Solutions)

•For best recent work in particle technology

PTF Award (Sponsored by DuPont)

•For lifetime achievement in particle technology

Lectureship Award (Sponsored by PSRI)

•For achievement in fluidization and fluid-particle systems

PTF Service Award

•For outstanding service to the PTF

http://www.aicheptf.org/activities/awards-through-ptf

All current and previous PTF Newsletters are now available online at http://aicheptf.org/activities/newsletter

PTF Treasury Report

Prepared by Prof. Ah-Hyung Alissa Park

Item	Ref Date	AIChE PTF Account		Independent PTF Account	
		Activity	Balance	Activity	Balance
Starting Balance	Aug-11		$ 12,958.08		$ 6,347.11
Dues Income	Dec-11	$ 1,440.00	$ 14,398.08		$ 6,347.11
Sponsorships	Dec-11	$ 2,300.00	$ 16,698.08		$ 6,347.11
Website Fees	Jul-11		$ 16,698.08		$ 6,347.11
PTF Dinner Registration	Nov-11	$ 3,750.00	$ 20,448.08		$ 6,347.11
PTF Credit Card Fees	Jul-11		$ 20,448.08		$ 6,347.11
Supplies and Other Expenses	Nov-11	$ (158.88)	$ 20,289.20	$ (78.47)	$ 6,268.64
AIChE Return (Investment)		$ (1,614.72)	$ 18,674.48		
Totals			**$ 18,674.48**		**$ 6,268.64**

Interested in helping the PTF as a sponsor. We have opportunities for sponsoring awards and dinners. Please contact Ray Cocco at ray.cocco@psrichicago.com

All past PTF newsletters are now archived at the PTF site on the Newsletter section under the menu heading "Activities". The direct link to the Newsletter section is http://aicheptf.org/activities/newsletter. **As always, please email any comments, suggestions, or concerns regarding the web site to Pat Spicer at** spicer.pt@pg.com