

8th Sino-US Chemical Engineering Conference

October 12-15 2015, Shanghai, China



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8th Sino-US Chemical Engineering Conference



Scientists, engineers and technologists from China and the United States have participated since 1982 in the Sino-US Chemical Engineering Conference as a platform to communicate the latest developments and share the knowledge in the field of chemical engineering. The 8th Sino-US Conference of Chemical Engineering will be held during October 12-15, 2015 in Shanghai. The theme of this three and a half day conference is “New Era of Chemical Engineering”, emphasizing not only the role of chemical engineers in the development of clean and sustainable processes, but also exploring the frontiers for developing fundamentals needed to tackle these challenges. *Continued on page 8*

Chair's Corner

by Rick Isherwood



Dear colleagues ,

Happy New Year.

2014 zipped past us and the AIChE Spring Meeting in Austin is almost upon us. Last year was a busy year for F&PD. In addition to supporting technical programming at both the AIChE Spring and Annual meetings, F&PD conducted numerous community outreach events. In the AIChE Annual meeting in Atlanta the F&PD division supported the student poster session and put on a workshop entitled "Interviewing in the Energy Sector" to assist college students with their efforts to land their first job or internship. Over \$1000 in scholarships were awarded to students at the poster session for outstanding research work in the Fuels and Petrochemical area.

OutReach Programs were held in New Orleans and in Chicago and touched the lives of over 800 high school and middle school students. These OutReach Programs were designed to encourage students to stay in school and to study math and science. The program introduced the students to chemical engineering and other engineering professions. The program provided the students the opportunity to interact with industry professionals and included presentations from keynote speakers, such as NASA Astronaut Al Sacco and other practicing engineers. The students were presented current topics of interest, from general engineering practices to developments in green energy projects. Students came away from the program with an understanding of what engineering is, what chemical engineers in particular do, how engineers touch our lives, and how to pursue a career in engineering.



You may not be able to change the world, but you can make a difference. Join us at F&PD and learn how. This year the F&PD has 4 active committees working on key issues facing our division and the Fuels and Petrochemical industry. It's not too late join one of the committees and support our efforts to improve F&PD. If you are interested in participating on one of the committees please let me or one of the committee Chairs know.

Membership - Rick Kolodziej

Community OutReach – Rick Isherwood

Innovative Technical Programming – Bill Rooney

Communications - Sharon Maydak

Communiqué from Communications Director

by Sharon Maydak



Over a year ago, I took over the role of communications director for Flashpoint. It has been a good year to look back on and see where we have been and where we hope to be going. We have successfully migrated our website to the AIChE platform and are looking for ways to continue to improve the site.

We are focusing a lot of our energy and efforts to increase our membership to the F&PD. This will be done through a new marketing campaign and higher visibility to our existing membership bases.

Looking forward into 2015, there is a lot to do. We hope to publish Flashpoint on a quarterly basis and appreciate everyone's help who provides an article for this edition.

UPCOMING EVENTS

AIChE 2015 Spring Meeting and 11th Global Congress on Process Safety

April 26-30, 2015
Hilton, Austin, TX

AIChE 2015 Annual Meeting

November 8 -13
Salt Palace Convention Center
Salt Lake City, UT

12th International Conference on Gas-Liquid & Gas-Liquid-Solid Reactor Engineering (GLS12)

June 28-July 1, 2015
Crowne Plaza, Times Square Manhattan, New York, NY
Columbia University, New York, NY

Harry West Poster Award Winners

Dr. Harry West was a chemical engineer widely respected for his work in chemical process safety and environmental assessment and compliance. He was a member of the faculty of Texas A&M and was an officer of the AIChE Fuels and Petrochemicals Division when he passed away on October 4, 2006. In honor of Harry's contributions to the field of chemical engineering and to the Institute's Fuels and Petrochemicals Division, the division established an award to be presented annually for outstanding work in fuels and petrochemicals. This year the Division is presenting the Harry West Award to the top three student posters at the AIChE Annual Meeting this past November in Atlanta.

The selection was made from approximately 40 posters. Not only the quality of the poster was considered, but also the presenter's understanding of the research presented and presentation skills.

This year's winners were:

First Place: Ashley Ware, from Tuskegee University, for her research on graphene as a storage media for electricity. Dr. David Baah is Ashley's faculty advisor.

Second Place: Christopher Ludtka, from the University of Tennessee, for his work on membrane modifications to improve vanadium fuel cell performance. Christopher's faculty advisor is Dr. Tom Zawodzinski.

Third Place: Clarke Polmer, from the University of Connecticut, whose work focused on combining the benefits of both fixed bed and fluid bed reactors. Clarke's faculty advisor is Dr. George Bollas.



Each award winner receives a check and certificate, and the school also receives a plaque commemorating the award recipient.

Laura Leonard - 2014 AIChE Industrial Progress Award



Every year at the Annual Meeting, AIChE recognizes a few as the top achiever in several categories. We are excited and honored that Laura Leonard, one of our active F&PD members, was awarded The Industrial Progress Award this year.

This award recognizes the significant contributions by an individual under 40 --- working in industries served by chemical engineers.

Laura is a Principal Development Specialist for UOP Honeywell. In addition to her current work in olefins and detergents, Laura

is a senior technology specialist for the UOP Oleflex (Catalytic Dehydrogenation) Process and has been instrumental and lead to process and operating improvements for all 17 of UOP's Oleflex Units in operation. Laura has also contributed to the commercialization of UOP's selective FCC naphtha hydrodesulfurization technology, called UOP SelectFining.

In bestowing the award, AIChE summarized Laura's accomplishments: "For a consistent track record of technical leadership and innovation, translating fundamental knowledge into commercially relevant engineering solutions".

We congratulate Laura for her award and thank her for her contributions to our industry and continued commitment to F&PD.

The Fuels and Petrochemicals Division of AIChE Academic Scholarship

by Ian Glasgow

The Fuels and Petrochemicals (F&PD) Division of AIChE annually sponsors two \$1,000 one-time scholarship awards to exemplary high school seniors who plan to study engineering or science in college. F&PD is committed to introducing high school students to careers in Fuels & Petrochemicals through its programs, helping to meet the industry's need for top talent in the future. For over 5 years F&PD has sponsored these scholarships.

In 2013, an excellent slate of candidates was reviewed and due to the high quality of the candidates, the committee decided to grant a runner-up award in addition to the two winners.

These winners were:

- Matt Kirby now attending Texas A&M University
- Taylor Moore now attending University of Arkansas
- Runner-Up Jordan Banks now attending University of Illinois at Urbana-Champaign

Here is some additional information about these excellent individuals.

	Matt Kirby	Taylor Moore	Jordan Banks
What University will you be attending?	Texas A&M University	University of Arkansas	University of Illinois at Urbana-Champaign
What are you planning to major in?	Chemical Engineering	Chemical Engineering	Chemical Engineering
What was your favorite subject in high school?	Split between Chemistry and Economics	Chemistry	History of the Americas
Do you have any pets?	No, but I'd love to get a German Shepherd some day soon.	No	I have a black lab mix named Coal.
Favorite book?	The Screwtape Letters by C.S. Lewis	The Book Thief	My favorite book is A Friend Like Henry by Nuala Gardner. It is a memoir about a family's struggle with their son's severe autism and how the purchase of a dog brings him to life.
Favorite movie?	The Dark Knight	The Book Thief	I don't have a favorite movie, but I watched The Graduate this past year and thoroughly enjoyed it.
Favorite hobby?	Outdoor Rock Climbing	Band and music	My favorite hobby is writing letters with nib pens and sealing them with wax.

	Matt Kirby	Taylor Moore	Jordan Banks
Any advice for other high school students?	Learn to love learning. Don't confine yourself to simply memorizing what is being tested over in school, but convince yourself to enjoy expanding your knowledge and creativity as a lifestyle. Adopting this kind of philosophy is what produces the hardest workers and the most productive, well-rounded results.	Do your very best on your studies, stay focused, give back to your community, and have a well-balanced life between school and friends.	Take all of your classes seriously now to gain a base understanding because the same classes in college will be so much different and go so much more in depth than your high school classes did.
What are you looking forward to the most in college?	The opportunity to meet new people from a wide array of backgrounds! College has the potential for unique friendship opportunities I have never had before.	Making connections and gaining experience for life.	I'm looking forward to being active in clubs that interest me and connecting with a diverse group of people.
Anything else you'd like to tell us about yourself?	I am so blessed to have been supported by my faith, family, teachers, and friends during high school. John Donne wrote that "No man is an island," and more than anything else I learned in school, that remains one of the most valuable truths I've retained.	Make sure you follow the path that will make you happy and will the best impact on you and others in the community.	I love community service and some of my favorite opportunities have been working with the special needs kids at my church and co-teaching ecology to a group of local fourth graders.

The scholarship targets graduating high school seniors with exemplary academic records and demonstrated leadership potential. Eligible applicants must plan to attend an accredited four year university in the fall and plan to major in engineering or science. College acceptance letters and proof of registration must be presented to F&PD's scholarship panel prior to disbursement of awards.

F&PD will award two scholarships again in 2015. The award is being spread by word of mouth, through AIChE, and through various college scholarship internet sites, such as:

- <http://www.scholarships.com/>
- <http://www.fastweb.com>
- <https://bigfuture.collegeboard.org>
- <http://collegenet.com>

We appreciate AIChE members' help in passing along this scholarship opportunity to interested students. One of the best ways this can be done is by posting this information on your company bulletin boards.

The Scholarship Panel of F&PD, comprising of multiple members of F&PD, will review all applications and rank applicants for the award. Award will be based on academic merit, Letters of Recommendation, and creativity/clarity and merit of an essay on a current event in the fuels and petrochemicals industry.

For additional information on this scholarship, please contact Ian Glasgow at Michael.Glasgow@mustangeng.com or William Rooney at William.Rooney@uop.com

Special AIChE Membership Offer:

Join AIChE and the Fuels & Petrochemicals Division and Save 50%*



AIChE, the global home of chemical engineers across a wide-spectrum of specific fields, provides valuable resources, tools, and a diverse global professional network you need to succeed ... offering benefits to help you at every stage of your career.

Join AIChE at half the rate:

1. Visit www.aiche.org/FPD15
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Enjoy immediate access to these member benefits to meet your professional needs:

Need to broaden your connections? Get instant access to a diverse, far-reaching network.

Through a wide range of AIChE-sponsored conferences, online membership communities, Local Sections and groups, it's easier than ever to meet like-minded professionals who are aligned with your industry or areas of interest. **AIChE's Technological Communities, Divisions and Forums**, including the **Fuels & Petrochemicals Division**, will keep you on the cutting-edge of your specialty and give you opportunities for affiliation with top engineers from around the world. You will meet new colleagues, exchange ideas, discuss the latest trends, and build lasting business relationships. AIChE offers you networking opportunities without even having to leave your desk that span across the country, globe and industries.

Need to build professional skills and knowledge? Visit The AIChE Academy.

The AIChE Academy is the education and training arm of the AIChE. Founded with a mission to increase the sharing of great ideas and enhance professional excellence in chemical engineering, The AIChE Academy offers a constantly growing catalog of eLearning, on-site training sessions, webinars and more. The AIChE Academy will help you find your answers, while preparing you with the essential training and innovative solutions you need to stay at the top of your field, whether you're a new professional or an experienced veteran. Find your delta — with the AIChE Academy.

Need to learn about a new topic or skill? AIChE Webinars can help.

AIChE Webinars, live and on-demand, cover current and informative topics of interest to all chemical engineers in an accessible at-your-desk format. Professional members are entitled to six free credits, worth more than \$700 (US), good for live or archived webinars, each year.

Need help researching a project? Explore the AIChE eLibrary.

The AIChE eLibrary, available 24/7, provides powerful, interactive, online access to more than 300 full-text books, handbooks, standards and databases through Knovel Life Sciences and McGraw-Hill's AccessEngineering Library collections.

Get more and do more, with AIChE's additional member benefits, including: **career support and tools** that can sharpen your soft skills while helping you manage your career progress; preferred rates to **global conferences** where you can learn from experts while networking worldwide; **Instructor-Led Training** to further your ChemE knowledge through classroom style courses, with locations globally; substantial savings on **publications, books, magazines and journals**; free CEP subscription (online). Make the connection. Discover the benefits of membership. Discover how the opportunities available as an AIChE member can help you achieve your goals.

*Offer applies to all AIChE member rates. The Fuels & Petrochemical Division annual rate is \$10 US.

See for yourself the type of expert insight you can access now as an AIChE Member and receive your special membership savings plus education and training offerings.

Visit www.aiche.org/FPD15

2015 Membership Application

Please return completed form to address/email at right.

Web: www.aiche.org • Email: customerservice@aiiche.org



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Phone: Toll-free: 800.242.4363 (U.S.) or
visit www.aiche.org/phone (outside
U.S.) to obtain your country's number.
Fax: 203.775.5177

Membership Information

COMPANY/UNIVERSITY (If Applicable)

LAST NAME/SURNAME/FAMILY NAME

FIRST NAME/GIVEN NAME

JOB TITLE

Mailing Address: ☐ Home ☐ Business

ADDRESS LINE 1/BUILDING NAME/FLOOR

ADDRESS LINE 2/STREET ADDRESS

CITY STATE/PROVINCE POSTAL CODE

COUNTRY

Gender ☐ Female ☐ Male For demographic purposes only.

Please Provide the Following Contact Information:

(Required to process application. Used for Institute business only.)

HOME PHONE

BUSINESS PHONE

PRIMARY E-MAIL ADDRESS

SECONDARY E-MAIL ADDRESS

DEGREE (1) (M/D/Y) UNIVERSITY

DEGREE (2) (M/D/Y) UNIVERSITY

MAJOR(S)

DATE OF BIRTH MONTH DAY YEAR

U.S. Tax Deductibility: AIChE dues, including CEP subscription of \$31, are tax deductible to the extent allowed by law. Please consult your tax advisor for further information.

1 Select Your Membership Category

What year did you receive your BS?

☐ Before 2012 ☐ 2012 ☐ 2013
☐ 2014 ☐ 2015

☐ I am currently unemployed

☐ I reside outside the U.S.

☐ If applying for full time Graduate Student rate, please supply:

2014 Institute Dues Chart (U.S.)	
Yr. of B.S. Degree	Dues/yr.
Before 2012	\$199
2012	\$150
2013	\$100
2014, 2015	\$50
Graduate Student	\$50
Unemployed	\$50

Graduation Date: _____ Name of School: _____

Local Section* Name _____ \$ _____

*View www.aiche.org/community/local-sections/find

2 Select Forums/Divisions

- ☐ Chemical Engineering & the Law Forum \$20
- ☐ Computational Molecular Sci & Eng Forum \$10
- ☐ Nanoscale Science & Engineering Forum \$10
- ☐ North American Mixing Forum FREE
- ☐ Particle Technology Forum \$15
- ☐ Pharmaceutical Discovery, Development & Manufacturing Forum FREE
- ☐ Sustainable Engineering Forum \$20
- ☐ Upstream Engineering & Flow Assurance Forum \$36
- ☐ Catalysis & Reaction Engineering Division \$10
- ☐ Computing & Systems Technology Division \$10
- ☐ Education Division \$7
- ☐ Food, Pharmaceutical & Bioengineering Division \$10
- ☐ Forest Bioproducts Division \$9
- ☒ Fuels & Petrochemicals Division \$10
- ☐ Management Division \$10
- ☐ Materials Engineering & Sciences Division \$7
- ☐ Nuclear Engineering Division \$10
- ☐ Process Development Division \$10
- ☐ Separations Division \$15
- ☐ Transport & Energy Processes Division \$7

Divisions with Publications included:

North America	Print	Web	Both
<input type="checkbox"/> Environmental, Env. Progress & Sustainable Energy	<input type="checkbox"/> \$45	<input type="checkbox"/> \$45	<input type="checkbox"/> \$75
<input type="checkbox"/> Safety & Health, Process Safety Progress	<input type="checkbox"/> \$45	<input type="checkbox"/> \$45	<input type="checkbox"/> \$75

Outside North America	Print	Web	Both
<input type="checkbox"/> Environmental, Env. Progress & Sustainable Energy	<input type="checkbox"/> \$95	<input type="checkbox"/> \$45	<input type="checkbox"/> \$125
<input type="checkbox"/> Safety & Health, Process Safety Progress	<input type="checkbox"/> \$95	<input type="checkbox"/> \$45	<input type="checkbox"/> \$125

3 Select Technical Societies

	Mem	Non-mem
Center for Innovation and Entrepreneurship Excellence (CIEE)	<input type="checkbox"/> \$20	<input type="checkbox"/> \$300
Design Institute for Emergency Relief Systems (DIERS)	<input type="checkbox"/> \$25	<input type="checkbox"/> \$75
Institute for Sustainability (IFS)	<input type="checkbox"/> \$25	<input type="checkbox"/> \$50
International Metabolic Engineering Society (IMES)	<input type="checkbox"/> \$25	<input type="checkbox"/> \$50
International Society for Water Solutions (ISWS)	<input type="checkbox"/> \$15	<input type="checkbox"/> \$50
Society for Biological Engineering (SBE)	<input type="checkbox"/> \$15	<input type="checkbox"/> \$75

4 Select Publications

North America	Print	Web	Both
Chemical Engineering Progress (CEP)*			Included
AIChE Journal	<input type="checkbox"/> \$165	<input type="checkbox"/> \$215	<input type="checkbox"/> \$265
Biotechnology Progress	<input type="checkbox"/> \$152	<input type="checkbox"/> \$70	<input type="checkbox"/> \$222
Food & Bioproducts Processing	<input type="checkbox"/> NA	<input type="checkbox"/> \$65	<input type="checkbox"/> \$145

Outside North America	Print	Web	Both
Chemical Engineering Progress (CEP)*	<input type="checkbox"/> \$301	<input type="checkbox"/> Included	_____
AIChE Journal	<input type="checkbox"/> \$295	<input type="checkbox"/> \$215	<input type="checkbox"/> \$395
Biotechnology Progress	<input type="checkbox"/> \$209	<input type="checkbox"/> \$70	<input type="checkbox"/> \$279
Food & Bioproducts Processing	<input type="checkbox"/> NA	<input type="checkbox"/> \$65	<input type="checkbox"/> \$145

*CEP magazine is available online to all members. The paper magazine is sent to all members with the exception of World Bank Level 1 members (\$49 dues) who must pay \$31 for the paper magazine.

5 Total Your Payment

Promo Code FPD15

Institute Dues	\$ _____
Division/Forum Dues	\$ <u>10</u>
Technical Society Dues	\$ _____
Publication Subscription(s)	\$ _____
Local Section Dues	\$ _____
Total	\$ _____

Form of Payment: ☐ Check enclosed (payable to AIChE)

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8th Sino-US Chemical Engineering Conference

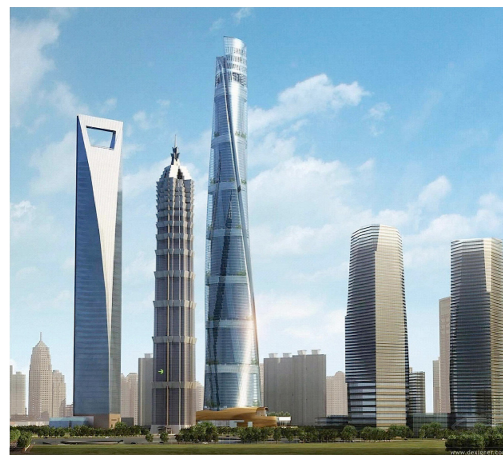
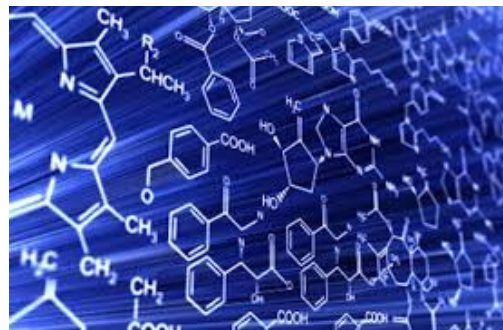
October 12-15 2015, Shanghai, China

The conference will include following:

1. Advanced Technology for Air Separation and Purification
2. Bioengineering and Biotechnology
3. Catalysis and Reaction Engineering
4. Energy
5. Food and Pharmaceutical Technologies
6. Green Technology
7. Management Science for Research and Development-How to make R&D effective and efficient
8. Materials and Nano Technology
9. Membrane Technology for Water Purification
10. Particle and Fluidization Technology
11. Petrochemicals and Fine Chemicals
12. Process Development and Optimization
13. Thermodynamics and Transport Phenomena
14. Separation Technology
15. Forum of Chemical Engineering Department Deans and Chairs

As one of the focus areas among sixteen topics is "Petrochemicals and Fine Chemicals". As one of the Industry and academic member in the field, you are invited to participate in this conference and submit papers. Dr. Teh Ho recently retired from Exxon Research and Engineering and will be the Program Chair from the US side. Dr. Norman Li is one of the General Chairs of this Conference. Mr. James Johnson of UOP and I will be along with our Chinese counterpart will coordinate the sessions on Petrochemicals and Fine Chemicals. The website for the conference is: suce.ecust.edu.cn

We are looking forward to your possible participation in this conference. The final deadline for abstract submission is August 31, 2015.



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