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**American Institute of Chemical Engineers**

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**MINUTES**

Separations Division Planning Meeting  
American Institute of Chemical Engineers  
2009 AIChE Annual Meeting

Sunday, November 8, 2009

Noon-5:00 pm

Lincoln B Room (Level M), Gaylord Opryland Convention Center

**Attendance:**

Norberto Lemcoff  
Atanas Serbezov  
John Pellegrino  
Priscilla Hill  
Chiajen Lai  
Isaac Gamwo

D.B. Bhattacharyya  
Mark Pilling  
Jay Miller  
Krista Walton  
Ranil Wickramasinghe  
Seyi Oduyungbo

Neil Yeoman  
Scott Husson  
Ravi Kumar  
Nicholas Urbanski  
Mark Davis  
Stephen Ritchie

**Board of Directors (BOD) Report (Neil Yeoman)**

Financials. The Institute is expected to have a net operating loss for 2009 (\$ 0.5 MM) due to reduced revenue stream. This situation is not expected to go away in 2010, even though a smaller loss is projected (\$ 0.25 MM). However, the net assets of the Institute have increased.

Membership. Professional membership continuous to drop from slightly above 30,000 to slightly below 30,000. A new strategic direction for the Institute is web-based interaction with members.

**Chemical Technology Operating Council (CTOC) Report (Neil Yeoman and Jay Miller)**

The Institute will ask each Division and Forum to start funding at least one representative at the Leadership Development Conference (LDC). The Separations Division has already done that this year. The financial situation of the Divisions and Forums is generally better than that of the Institute. This is why they are asked to help the LDC financially by sponsoring their representatives.

**Treasurer Report (Neil Yeoman)**

The report is distributed electronically (via e-mail) every month. If anyone wants a copy, he/she can contact Neil. The most recent balance is around \$60,000. The financial health of the Division is good.

The Division money is not invested in the market and the Division's assets have not decreased as a result of the recent financial turmoil.

**Future of Area 2h General Topics & Other Methods (Stephen Ritchie)**

At the Spring 2009 planning meeting in Tampa it was decided to leave Area 2h (General Topics and Other Methods) dormant for the time being until a demand for programming in this area emerges again. The current area chair, Stephen Ritchie, pointed out that there is a need for a General Poster Session in Separations. It is a nice session to accommodate papers that cannot find a home given the fact that not every area has a poster session.

Motion: That the Division keep the General Poster Session in Separations active.  
The motion was seconded and passed unanimously.

**2009 Programming (Norberto Lemcoff)**

At the 2009 Annual meeting in Nashville the Division has 59 regular oral sessions, 1 plenary session (part of the Topical conference on Energy and Sustainability) and 4 poster sessions. There is no pressure from the Institute to reduce the number of sessions

### 2010 Programming (D.B. Bhattacharyya)

Programming Deadline. December 10 is the deadline for entering the session information on the conference web site.

Tutorial Sessions. The programming areas are encouraged to organize tutorial sessions at the 2010 Spring meeting. From past experience these sessions draw good attendance.

Topical Conference. A topical conference on Separation Needs for Energy Independence and Environmental Sustainability will be organized by Ranil Wickramasinghe and Glenn Lipscomb. It originated from area 2d Membrane-Based Separations but the organizers were encouraged to look for sponsorship beyond the area and the Division.

**Action item:** Ranil Wickramasinghe will talk to other Divisions and areas within the Separations Division in order to expand the sponsor's list.

Gerhold Award Plenary Session. It was proposed to organize an invited speaker session where the winners of the Gerhold award will be invited to give talks.

**Action item:** D.B. Bhattacharyya and Mark Davis will co-chair the Gerhold invited session in 2010..

### Area Reports

See Appendix for more details.

Area	Nashville (Fall 2009)	San Antonio (Spring 2010)	Salt Lake City (Fall 2010)
<b>Area 2a (Distillation and Absorption)</b>	3 oral total 0 poster 1 co-sponsored	5 oral total 0 poster 0 co-sponsored 2 honor	4 oral total 0 poster 0 co-sponsored 1 honor
<b>Area 2b (Crystallization and Evaporation)</b>	6 oral total 1 poster 4 co-sponsored	No sessions	7 oral total 1 poster 5 co-sponsored
<b>Area 2c (Extraction)</b>	3 oral total 0 poster 0 co-sponsored	No sessions	3 oral total 0 poster 0 co-sponsored
<b>Area 2d (Membrane-Based Separations)</b>	25 oral total 1 poster 4 co-sponsored	No sessions	25 oral total 1 poster 4 co-sponsored 10 additional topical sessions
<b>Area 2e (Adsorption and Ion Exchange)</b>	15 oral total 1 poster ? co-sponsored	No sessions	14 oral total 1 poster ? co-sponsored
<b>Area 2f (Fluid-Particle Separation)</b>	3 oral total 0 poster 0 co-sponsored	3 oral total 0 poster 0 co-sponsored	4 oral total 0 poster 0 co-sponsored
<b>Area 2g (Bioseparations)</b>	3 oral total 0 poster 2 co-sponsored	No sessions	4 oral total 0 poster 2 co-sponsored
<b>Area 2h (General Topics and Other Methods)</b>	0 oral total 1 poster 0 co-sponsored	No sessions	1 poster

### ***Awards (Mark Pilling)***

Gerhold Award– Dibakar Bhattacharyya, University of Kentucky

#### Graduate Student Awards

- Scott Owens, University of Texas (Advisor: Bruce Eldridge)
- Aihua Zhu, UCLA (Advisor: Yoram Cohen)
- Sarah L. Perry, University of Illinois at Urbana-Champaign (Advisor: Paul Kenis)
- Pedro Sá Gomes, University of Porto, Portugal (Advisor: Alfrío E. Rodrigues)

### ***Division Web Site (Krista Walton)***

Website migration to AIChE webhosting has been delayed due to upgrades in the AIChE system. The upgrades had been scheduled to be completed this past summer, but there seems to be little movement on the issue.

It was decided that Krista will move forward with using a commercial web hosting system (e.g., godaddy.com) to create the new Separations division website.

### ***Webinars***

The Institute is now hosting regular webinars on various topics. Each AIChE member is entitled to six free webinars. The webinars are becoming very popular among members and are seen as an excellent way to bring value to members and retain/increase membership numbers.

The Division must be more proactive in this area. Sponsoring webinars will also increase the visibility of the Division. Ravi Kumar is the Division Director responsible for the webinars.

**Action item:** Area chairs are asked to identify possible speakers from their areas and send the contact information to Ravi. Jay Miller has volunteered to help Ravi.

### ***Membership Growth Initiatives (Scott Husson)***

Scott Husson, the Division Director responsible for membership, has started on a long list of initiatives.

#### Completed Initiatives:

- Contacted AIChE to put the Separations Division on the 'Join Divisions and Forums' page
- Developed a Division advertisement slide for session chairs to project prior to the start of each session

#### Proposed Initiatives:

- Become active with annual student meeting (lack of volunteers this year)
- Update the Division website membership page - add an electronic membership form
- Revive newsletter (last one on the website is 2004)
- Member-get-a-member program
- Start engaging the undergraduate students
- Start engaging graduate students

**Action item:** Area chairs are asked to identify graduate students to serve as session co-chairs.

**Action item:** Scott Husson, Jim Ritter and John Pellegrino will explore the creation of an undergraduate Separations guide, possibly as an ipod application.

### ***Networking Session***

A Networking session will be organized in 2010.

## ***Division Awards***

### **Gerhold Award**

The imbalance between industrial and academic award winners of the Gerhold Award was discussed. There are two possible solutions that have been discussed over the past year:

- Alternate the winner of the Gerhold Award between industry and academia
- Have two Gerhold Award winners every year, one from industry and one from academia

**Motion:** That it will be decided at this planning meeting, whether to have one or two Gerhold Award winners.  
The motion passed.

**Motion:** That there will be two Gerhold Award winners every year, one from industry and one from academia.  
The motion failed.

**Motion:** That there will be only one Gerhold Award winner and the winners are alternated between industry and academia, starting with industry in 2010.  
The motion passed.

### **John F. Kunes Early Career Award**

**Motion:** Remove “Early Career” from the “John F. Kunes Early Career Award” name and have the award name as “John F. Kunes Award”.  
The motion passed.

### **Awards Committees Structure**

The Awards Committee structure and procedures for the John F. Kunes Award were discussed. It was proposed that both awards (Gerhold Award and John F. Kunes Award) use the same procedures.

**Action item:** Neil Yeoman will provide a formal description of the process that will be discussed at a teleconference meeting before the end of the year.

### **Service Award.**

There was a discussion on whether a Division Service Award should be instituted to recognize work above and beyond the normal duties. There is a concern that the logical awardee seems to be the chair.  
Further discussion and a decision were postponed.

### ***Separations Division Survey Results***

The responses reflect that the division is doing a good job at meeting its members' expectations.  
See Appendix for more details

### ***Leadership Development Conference (LDC) Report (Priscilla Hill)***

The focus was on young professionals and underrepresented minorities. There is a concern over future financial problems due to young professionals and underrepresented minorities not joining and not remaining as members. Young professionals expect a tangible result from attending a meeting. Ideas to improve the participation by young professionals and underrepresented minorities are to invite them personally (as opposed to a mass e-mail) and get them involved.

**AIChE  
Separations Division  
Area Reports Summary  
Fall 2009**

**Area 2a (Distillation and Absorption)  
by Nick Urbanski and Mike Resetarits**

**Nashville (Fall 2009)**

3 oral sessions total, one of which is a co-sponsored plenary session. No poster sessions.

**San Antonio (Spring 2010)**

5 oral sessions total, two of which are honor sessions for Karl Chuang. No poster sessions.

**Salt Lake City (Fall 2010)**

4 oral sessions total, one of which is an honor session. No poster sessions.

**Topicals or Specials**

**Succession Plan**

At the close of the Nashville meeting, Michael R. Resetarits will become the Chair of Area 2a and Nicholas F. Urbanski will remain as Vice-Chair.

**Other**

Mike will not attend the Nashville meeting.

**AIChE  
Separations Division  
Area Reports Summary  
Fall 2009**

**Area 2b (Crystallization and Evaporation) by Chiajen Lai**

**Nashville (Fall 2009)**

6 oral sessions, 4 of which are co-sponsored, and one poster session

**San Antonio (Spring 2010)**

No sessions are planned

**Salt Lake City (Fall 2010)**

7 oral sessions, 5 of which is co-sponsored, and one poster session

**Topicals or Specials**

None reported

**Succession Plan**

Chiajen Lai is the current area chair.

A vice chair will be elected in Nashville.

**Other**

None reported.

**AIChE  
Separations Division  
Area Reports Summary  
Fall 2009**

**Area 2c (Extraction) by Tim Frank**

**Nashville (Fall 2009)**

3 oral sessions. No poster sessions.

**San Antonio (Spring 2010)**

No sessions are planned

**Salt Lake City (Fall 2010)**

3 oral sessions. No poster sessions.

**Topicals or Specials**

No plans.

**Succession Plan**

Tim Frank Chair of Area 2c (2009 - 2011),

Frank Seibert, Vice Chair of Area 2c (2009-2011) (Past Chair).

I have asked Megan Donaldson to chair several of the sessions starting in 2010 (for the national meetings). Megan will then be in line to serve as Chair of Area 2c starting in 2012.

**Other**

Tim will be late for the planning meeting. His plane does not arrive until 2:45pm.

**AIChE  
Separations Division  
Area Reports Summary  
Fall 2009**

**Area 2d (Membrane-Based Separations)  
by Ranil Wickramasinghe**

**Nashville (Fall 2009)**

21 sponsored and 4 co-sponsored oral sessions. One poster session

**San Antonio (Spring 2010)**

No sessions are planned

**Salt Lake City (Fall 2010)**

Expected same as Nashville

**Topicals or Specials**

A topical request was submitted for the 2010 Annual Meeting in Salt Lake City. The request has been approved. This will be topical 1. Total number of sessions – 10. Co-chairs: Ranil Wickramasinghe and Glenn Lipscomb.

**Succession Plan**

Ranil Wickramasinghe will take over as chair at the conclusion of the 2009 annual meeting. Area 2D will elect a Vice-Chair at the planning meeting.

**Other**

Area 2d planning meeting 6.00 – 7.00 pm, Tuesday 10 November, Belle Meade C/D (Level M) Gaylord Opryland Hotel.

Ranil has OCCT meeting 1:15pm to 2:45pm in the room next door (Lincoln C). He will attend the Separations Division Planning Meeting except for 1:15pm to 2:45pm.



**AIChE  
Separations Division  
Area Reports Summary  
Fall 2009**

**Area 2e (Adsorption and Ion Exchange) by Mark Davis**

**Nashville (Fall 2009)**

15 oral sessions. One poster session

**San Antonio (Spring 2010)**

No sessions are planned

**Salt Lake City (Fall 2010)**

14 oral sessions. One poster session

**Topicals or Specials**

No plans.

**Succession Plan**

Linda Wang will be taking over as Chair in January 2010 and a New Vice Chair from industry will be elected at the Nashville meeting.

**Other**

6 new members joined the Area 2e Committee in 2008.

**AIChE  
Separations Division  
Area Reports Summary  
Fall 2009**

**Area 2f (Fluid-Particle Separation) by Isaac Gamwo**

**Nashville (Fall 2009)**

3 oral sessions. No poster sessions.

Fluid-Particle Separations in Nanosystems session was cancelled due to insufficient number of papers submitted.

**San Antonio (Spring 2010)**

3 oral sessions. No poster sessions.

**Salt Lake City (Fall 2010)**

4 oral sessions. No poster sessions.

**Topicals or Specials**

**Succession Plan**

Isaac Gamwo is the current Chair. Seyi Oduyungbo is the current Vice-Chair and will become Chair January 1, 2010 through December 31, 2011. If selected, Isaac Gamwo intends to serve as his Co-Chair.

**Other**

**AIChE  
Separations Division  
Area Reports Summary  
Fall 2009**

**Area 2g (Bioseparations) by Giorgio Carta**

**Nashville (Fall 2009)**

1 sponsored and 2 co-sponsored oral sessions.

The additional session we had requested, Advances in Industrial Bioseparations, was cancelled due to the limited number of papers received. However, the remaining sessions are very strong with a total 19 high quality papers. We are grateful to Area 2D and Area 2E for co-sponsoring the two sessions with us. We feel this is an excellent way of promoting bioseparations programming. We are happy with industrial participation. Four of the co-chairs are from industry.

**San Antonio (Spring 2010)**

No sessions planned.

**Salt Lake City (Fall 2010)**

2 sponsored and 2 co-sponsored oral sessions:

Area 2E has already agreed to co-sponsor a session on Adsorption of Biomolecules. We will ask Area 2D to co-sponsor again a session on membranes for bioseparations. We would be happy to co-sponsor and provide co-chairs for additional sessions dealing with bioseparations.

**Succession Plan**

Giorgio Carta (University of Virginia) will continue to serve as Chair through 2010. Kathleen Mihlbachler (BMS) is serving as Vice Chair and will succeed as Chair for the 2011-2012 biennium. Although the newly established Area 2G by-laws require a new chair to succeed every two years, since we had to start basically from scratch, the committee agreed that G. Carta would serve for 3 years. Elections of a new Vice Chair who will work with Kathleen and eventually succeed her will take place at the Salt Lake City Meeting.

**Other**

Giorgio will not be able to attend the planning meeting

Area 2G will hold a committee meeting on Tuesday at 6:00 PM in Jackson A (Level M) to finalize programming for 2010.

**AIChE  
Separations Division  
Area Reports Summary  
Fall 2009**

**Area 2h (General Topics and Other Methods) by Stephen Ritchie**

**Nashville (Fall 2009)**

1 poster sessions.

**San Antonio (Spring 2010)**

**Salt Lake City (Fall 2010)**

At the Spring planning meeting in Tampa it was decided to leave Area 2h (General Topics and Other Methods) dormant for the time being until a demand for programming in this area emerges again.

**Topicals or Specials**

**Succession Plan**

**Other**

E-mail from Steve:

“I was not in favor of the decision to make the area dormant. My objection is that there is a need for a General Poster Session in Separations. It is a nice session to accommodate papers that cannot find a home. This is most important when space is limited (e.g., San Francisco).

2H is also a nice starting ground for newcomers to the division to contribute service. This can be especially valuable for tenure-track professors. I can keep running the poster session in the interim unless a decision is made that it is not valuable to the division.”

## **Separations Division Survey (2009)**

- 106 responses (66 from industry, 27 from academia, 3 for government, 7 others)
- Division membership: ~646. Response success ~ 16.5%
- Reasons for Joining Division: 74% Networking; 58% Programming; 10% Awards; 22% Other
- Most important activities: 48% Networking; 39% Annual Meeting; 19% Spring Meeting; 8% Awards.
- Division Delivery Rating (median): Programming 7.5/10; Awards 7/10; Networking 7/10
- Recommend membership to other AIChE members: 82% yes.

### **Synopsis**

The responses general reflect that the division is doing a good job at meeting its members' expectations. The following reflects the respondents views. The majority of our responding members are from industry and the primary reasons cited for joining are the opportunities to network and to experience (and help direct) the Division's programming efforts. It is generally felt that we are doing a good job with the Annual Meeting.

Some key functions that the division should serve include: tracking new developments in separations; providing mentoring for younger engineers and students; creating an online database (that includes people and general technical information relating to separations; and begin to provide programming in small-scale separations including chromatography and ion exchange. On the other hand, it is felt that our November programming is too academically-skewed and that we have too little focus on distillation and that we lack vision for minerals separations. We were also encouraged to bring in more industrial speakers.

Some broad themes expressed for new sessions are CO<sub>2</sub> sequestration, all-things-energy-related, and minerals. It was also mentioned that more membrane-oriented sessions be offered in the Spring Meeting. Additionally, suggestions for new offerings were the development of Webinars (on many separations topics) and that we focus more on "cutting-edge" developments versus "dated" reviews/tutorials, and that we get creative in addressing the "white space" between existing processes and product lines.

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### **Specific function the Division should be serving**

Tracking monitoring advances in separations  
Publish information on separations  
Link to online data sources  
Networking among members  
Web training/meetings  
Increase contact between industry and academia

List of experts database (membership information)

### Separations sessions

Tutorial sessions

Separations in specific industries

Separations, Energy, Environment, Water

Membranes sessions in Spring meeting

Distillation

CO2 separation/capture technologies

### How can Separations Division help?

Webinars

Newsletter

Forum in the internet

Programming for young professionals/mentoring program

Networking opportunities

Database of subject matter experts

Communicate current technology information

Cutting edge sessions

Services offerings

### Additional comments

SepDiv small committee of people

Web based activities

Separation topics of current industrial interest

### Conclusions and Suggestions

The general conclusion from the responses is that the Separations Division is doing a good job.

New proposed activities:

- Newsletter with links to technologies and news
- Tutorial sessions. Try in 2010 Spring meeting subsidizing members in the San Antonio area to present. Perhaps U.ofTexas at Austin coordination.
- Offer ads in website (small fee to start)
- Include area of expertise in AIChE member database and made it public: Propose to National
- Webinars