

SEPARATIONS DIVISION

American Institute of Chemical Engineers

Mark M. Davis
Chair
Honeywell UOP
25 East Algonquin Road
Des Plaines, IL 60017
(847) 375-7277
mark.davis4@honeywell.com

Roger D. Whitley
First Vice Chair
Air Prod. and Chem., Inc.
7201 Hamilton Blvd.
Allentown, PA 18195
(610) 481-3961
whitlerd@airproducts.com

Marcus Dutra e Mello
Second Vice Chair
Chevron
100 Chevron Way
Richmond, CA 94801
(510) 242-1414
mvdem@Chevron.com

Atanas Serbezov
Secretary
Dept. Chem. Eng.
Rose-Hulman Inst. Technol.
Terre Haute, IN 47803
(812) 877-8097
serbezov@rose-hulman.edu

Neil Yeoman
Treasurer
LNCK Associates
1723 Alexis Road
Merrick, NY 11566
(516) 946-9530
loretta.neil@yahoo.com

Scott Husson
Past Chair
Clemson University
127 Earle Hall
Clemson, SC 29634
(864) 656-4502
shusson@clemson.edu

DIRECTORS

Tarun Poddar
tpoddar@att.net

Jeff McCutcheon
University of Connecticut
jeff@engr.uconn.edu

Kathleen Muhlbachler
muhlbachler@yahoo.com

Anand Vennavelli
FRI
vennavelli@fri.org

Megan Donaldson
Dow
medonaldson@dow.com

Christopher Burcham
Lilly
cburcham@lilly.com

Lauren Greenlee
University of Arkansas
greenlee@uark.edu

Alice Z. He
Chevron
azhe@chevron.com

Marina Tsianou
University at Buffalo
mtsianou@buffalo.edu

Isaac K. Gamwo
NETL/DOE
gamwo@netl.doe.gov

AREA CHAIRS

Dan Summers
Distillation & Absorption (2a)
dan.summers@sulzer.com

Marina Tsianou
Crystallization & Evaporation (2b)
mtsianou@buffalo.edu

George Goff
Extraction (2c)
georgeg@lanl.gov

Jeff McCutcheon
Membrane-Based Separations (2d)
jeff@engr.uconn.edu

Matthias Thommes
Adsorption & Ion Exchange (2e)
matthias.thommes@quantachrome.com

Isaac K. Gamwo
Fluid-Particle Separations (2f)
gamwo@netl.doe.gov

Stephen Thiel
Bioseparations (2g)
Stephen.Thiel@uc.edu

Stephen Ritchie
General Topics &
Other Methods (2h)
sritchie@eng.ua.edu

CTOC LIAISON

Katherine Gawel
katherine.gawel@gmail.com

MINUTES

Separations Division Planning Meeting American Institute of Chemical Engineers 2017 AIChE Annual Meeting

Sunday, October 29, 2017 – Noon to 5:00 PM
Symphony II (Hilton Minneapolis)

Attendance (in person):

Mark Davis	Roger Whitley	Marcus Mello
Atanas Serbezov	Scott Husson	Tarun Poddar
Jeff McCutcheon	Anand Vennavelli	Megan Donaldson
Alice He	Marina Tsianou	Isaac K. Gamwo
Dan Summers	Stephen Thiel	Stephen Ritchie
Ranil Wickramasinghe	Paul Scovazzo	Stefano Brandani
Glenn Lipscomb	D.B. Bhattacharyya	Haiqing Lin
Linda Cheng	Andrew Sloley	Robert Giraud
Lucy Camacho	Katherine Gawel	Joshua Thompson
Rick Cane		

Approval of Minutes from the Planning Meeting on April 26, 2017 (Atanas Serbezov)

The minutes were distributed via e-mail. A motion to approve the minutes as distributed by e-mail was made, seconded and passed by acclamation.

Election Results & Introduction of New Officers (Mark Davis)

Ranil Wickramasinghe - 2nd Vice Chair

Paul Scovazzo – Director

Seyi Oduyungbo - Director

Neil Yeoman - Treasurer.

Atanas Serbezov – Secretary

Revised Separations Division Bylaws (Mark Davis)

The vote on the proposed changes in the Separations Division bylaws was included on the election ballot and passed. Special thanks to Scott Husson and Alice He for their work in revising and updating the bylaws.

CTOC Update (Ranil Wickramasinghe for Katherine Gawel)

The Institutes would like to increase international participation by encouraging more international representation in programming committees and leadership positions.

Institute membership is increasing but the number of dues paying members is not. The Institute would like to see more of the non-paying members transition to paying members.

Treasurer's Report (Tarun Poddar)

A report is distributed via e-mail every month. The financial health of the Division is good. At the end of September 2017 the Division had \$ 74,383 in its account.

Tarun Poddar presented an analysis of the past use of the Division's funds. The presentation slides can be found in the Appendix to the minutes.

There is a concern that the earnings on the Division's fund balance are very small. Currently, 100% of the Division's funds are allocated to the CD option offered by AICHE. See next topic for more details.

Investment Options for Division Funds (Rick Cane)

Rick Cane, AICHE's Finance Director, explained the investment options for the Division's funds. The options are described in the "*Financial Accounting Manual For Divisions & Forums*". Below is an excerpt from the manual.

Earnings on Fund Balance

For simplicity, the division or forum will elect prior to December 31 each year whether to accept the results of AICHE's investment portfolio or the one-year CD rate as published by Citibank for the following year's earnings. The division or forum may divide their funds between these two alternatives at its own discretion. The decisions can be changed annually. (Please note that returns on investments can be positive or negative, so there is a potential for the fund balance to decrease.) For those divisions or forums that have elected to use the one-year CD rate, earnings on the fund balance will be reflected in the financial statements in March, June, September, and December. For divisions or forums using the rate of return from AICHE's investment portfolio, a one-time adjustment will be reflected in the financial statements at the end of each year. Appreciation or depreciation will be based on the average of the monthly fund balances.

It is recommended that the Executive Committee of each division and forum take time during its meeting at the AICHE Annual Meeting or another convenient time to review and adjust its fund balances. If changes are to be made to the fund balances, a resolution passed by the Executive Committee is to be sent to the AICHE Controller that details the proportions of the balance that are based on the AICHE's investment portfolio and the one-year CD rate. A sample resolution is provided in Attachment 2. If a resolution adjusting the fund balances is not received by the AICHE Controller by December 31, the balances will remain the same in the following year as they are in the current year.

After a comprehensive discussion, the following motions were made:

Motion: Start allocating Division funds into the AICHE investment portfolio

The motion was seconded and passed unanimously.

Motion: The Executive Committee of the Division to implement the allocation of Division's funds into the AICHE investment portfolio by December 31, 2017

The motion was seconded and passed unanimously.

A straw poll was taken on the percentage of Division's Funds to be allocated to the AICHE investment portfolio. The results were:

- 100 % - 13 votes
- 75% - 6 votes
- 50 % - 0
- 25 % - 0

Awards Dinner Tickets for Awardees (Marcus Mello)

The awards Dinner in Minneapolis will be at one of the conference venues and the arrangements are managed by AICHE (Todd Caporizzo). The Division was asked by AICHE to prepay the dinner tickets given to awardees. This is a departure from past practice and creates a number of logistical issues for the Division.

Action Item: Marcus Mello and Ranil Wickramasinghe will follow up with Rick Cane and Todd Caporizzo to clarify the procedure for 2018.

Programming Chair Clarification (Mark Davis)

The Programming Chair attends AIChE programming retreat in the summer and participates in quarterly calls on longer term programming issues. Division's bylaws have the Programming Chair and the Division Chair as the same person. The AIChE system, however, defaults to the Past Division Chair as the Programming Chair.

Action Item: Ranil Wickramasinghe will follow up with Kristine Chin (AIChE Director, Conferences) to have the AIChE default corrected.

Review of Action Items:

1-Distribution and approval of the revised Division bylaws (Mark Davis)

Completed

Review of Action Items:

2- Update the Kunesh Award description on the Division's web page (Megan Donaldson)

In progress.

Review of Action Items:

3- Abstract Submission Deadline for 2017 Annual Meeting (Mark Davis)

Completed. Mark expressed Division's concerns to the Division's CTOC liaison, Katherine Gawel, regarding the timing of the 2017 abstract submission deadline, the communication of the deadline change to mid-April from the typical early May, and the decision not to allow a formal extension. The Executive Board of the Program Committee responded. They addressed each point and proposed an action plan to prevent a similar situation in the future. The detailed response is included in the Appendix to the minutes.

Director Reports: Awards (Anand Vennavelli)

See the Awards Report slides in the Appendix.

There was concern that the Division does not maintain a record of all people who have been recognized for their contributions by individual areas.

Action Item: Alice will take the lead to compile a list of all people recognized for their contributions by individual areas.

Director Reports: (Isaac Gamwo)

Focus this year was to attract more thoughtful industrial leaders to the conference to share the major research challenges in separations in the energy industry. A tentative division-wide plenary session was programmed for Fall 2017 meeting but withdrawn due to lack of outstanding speakers.

A plenary session is proposed for Fall 2018 with a tentative title "Separations Challenges in the Energy Industry". Division members are encouraged to refer names of potential speakers to Isaac.

Area Reports (Mark Davis, Area Chairs)

See slides in the Appendix

Programming Plans (Mark Davis, Area Chairs)

The Division has been asked to reduce the total number of sessions by 2 (from 60 to 58) for Fall 2018 (Pittsburgh). Area 2a offered to absorb the cut and reduce its sessions from 5 to 3.

See slides in the Appendix

APPENDIX

AIChE Separations Division

2017 AIChE Annual Meeting

October 29, 2017

Hilton Minneapolis (Symphony-II)

Minneapolis, MN

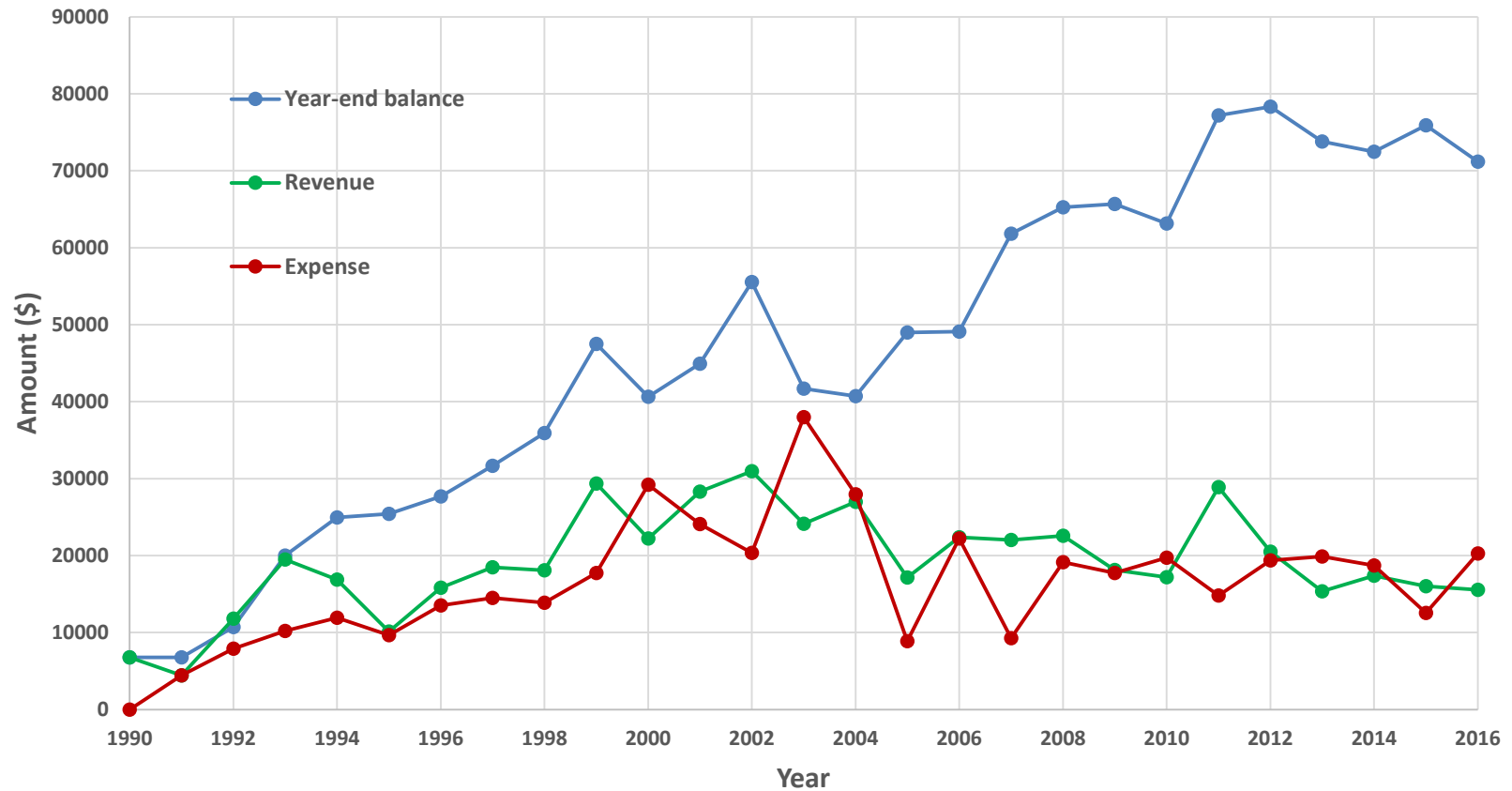
Noon – 5:00 PM (local time)

Financial Summary

Separation Division



Financial trend overview



Financial overview for 2016

Assets on 12/31/2015	75,896.94
Assets on 12/31/2016	71,183.65
Net Change	- 4,713.29



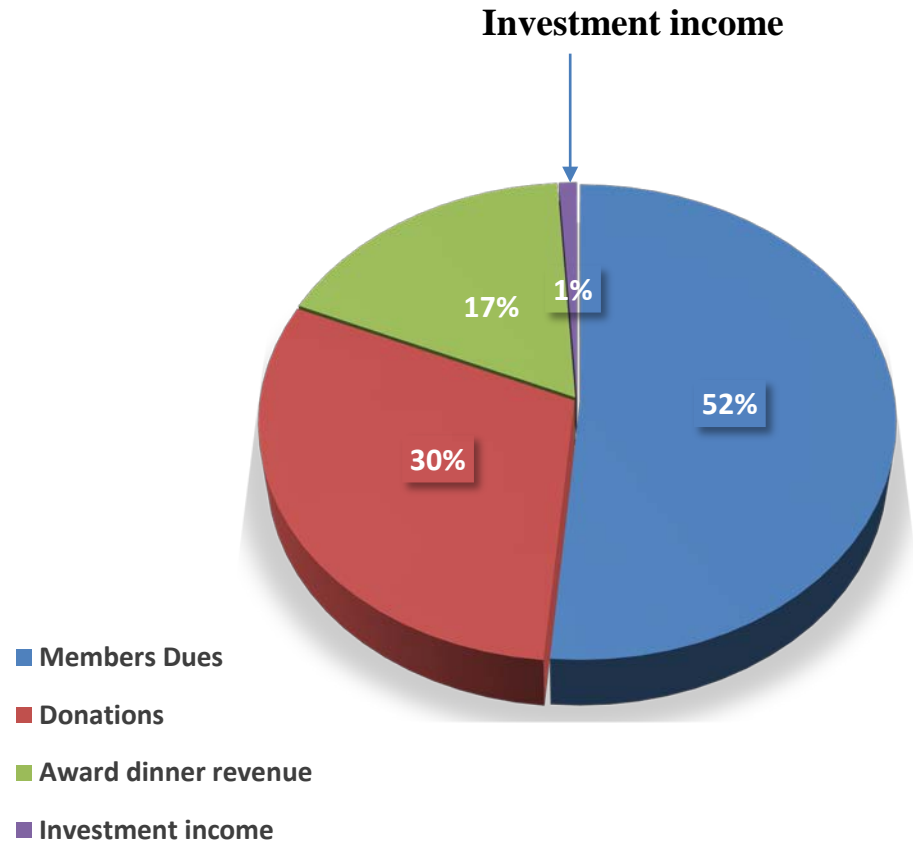
Total Receipts	15,551.76
Total Disbursements	20,265.05
Net Earning	- 4,713.29

Held by AIChE	69,642.25
TD Bank Checking Account	1,541.40
Total	71,183.65



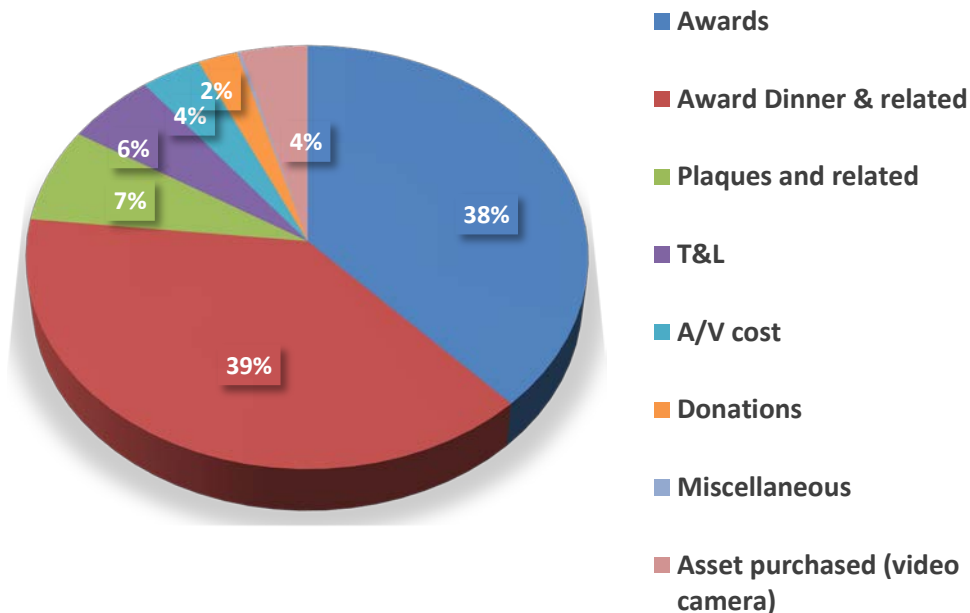
Revenue details for 2016

Members Dues	7,995.00
Donations	4,700.00
Award dinner revenue	2,700.00
Investment Income	156.76
Total Revenue	15,551.76



Expense details for 2016

Awards	7700.00
Award Dinner & related	7838.27
Plaques and related	1458.60
T&L	1128.38
A/V cost	757.85
Donations	500.00
Miscellaneous	42.95
Asset purchased (video camera)	839.00
Total	20265.05



Financial overview for 2015

Assets on 12/31/2014	72,460.12
Assets on 12/31/2015	75,896.94
Net Change	3,436.82



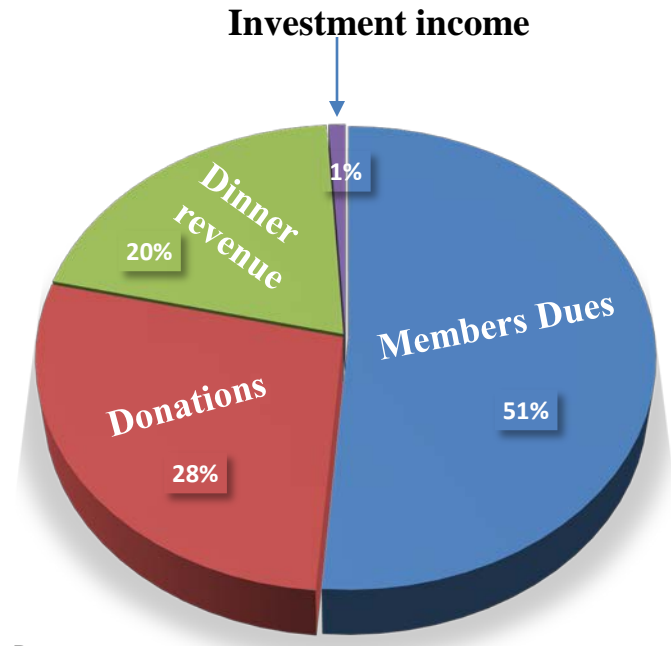
Total Receipts	16,000.68
Total Disbursements	12,563.86
Net Earning	3,436.82

Held by AIChE	73,276.94
TD Bank Checking Account	2,620.00
Total	75,896.94



Revenue details for 2015

Members Dues	8,205.00
Donations	4,400.00
Award dinner revenue	3,240.00
Investment Income	155.68
Total Revenue	16,000.68

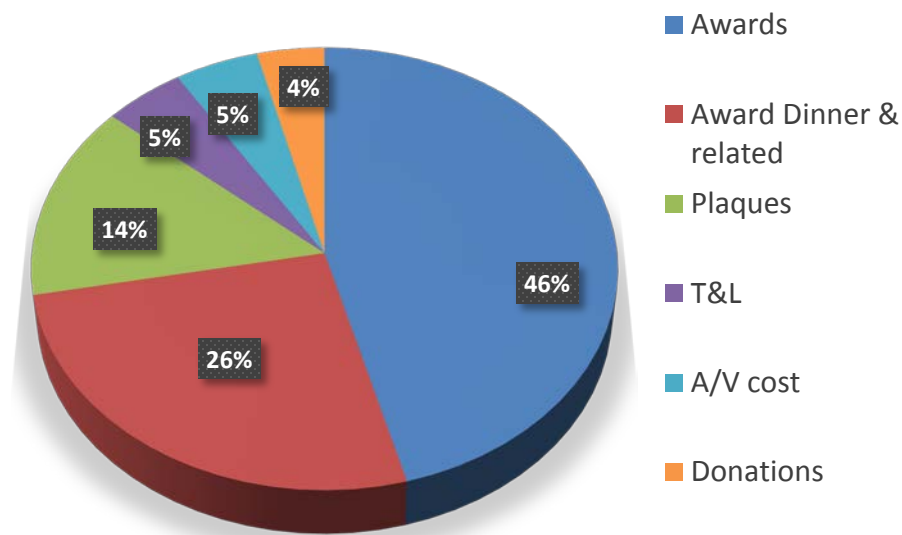


- Members Dues
- Donations
- Award dinner revenue
- Investment income



Expense details for 2015

Awards	5,750
Award Dinner & related	3,293.54
Plaques	1,793.77
T&L	602.74
Audio/Visual	622.32
Donations	500
Miscellaneous	1.49
Total Expense	12,563.86



Financial overview for 2014

Assets on 12/31/2013	73,798.46
Assets on 12/31/2014	72,460.12
Net Change	-1,338.34



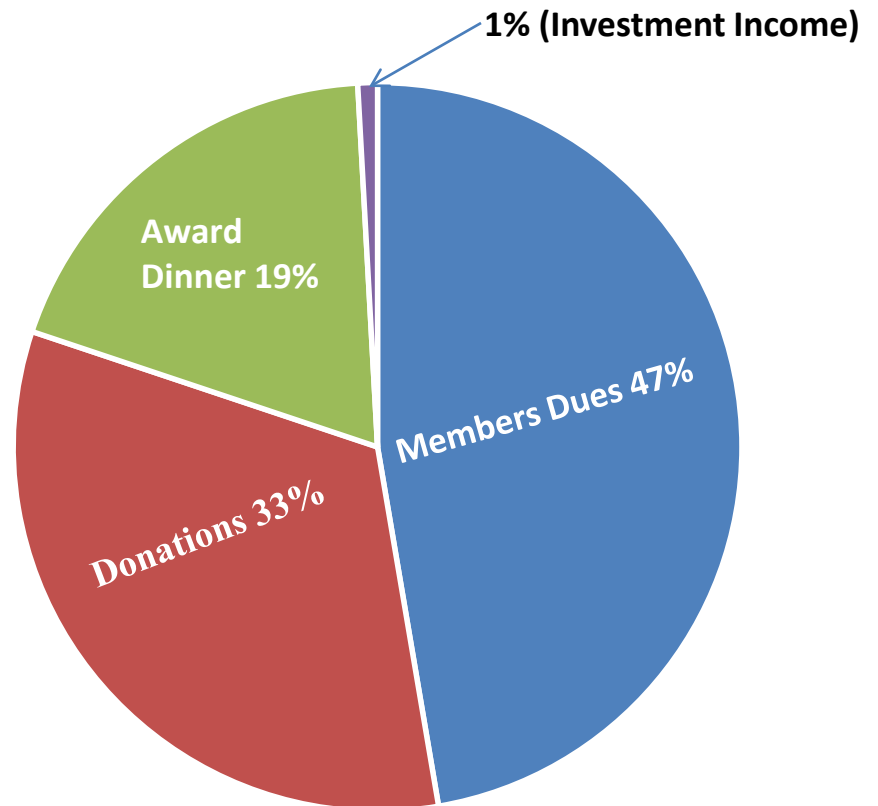
Total Receipts	17,371.27
Total Disbursements	18,709.61
Net Earning	-1,338.34

Held by AIChE	69,960.12
TD Bank Checking Account	2,500.00
Total	72,460.12



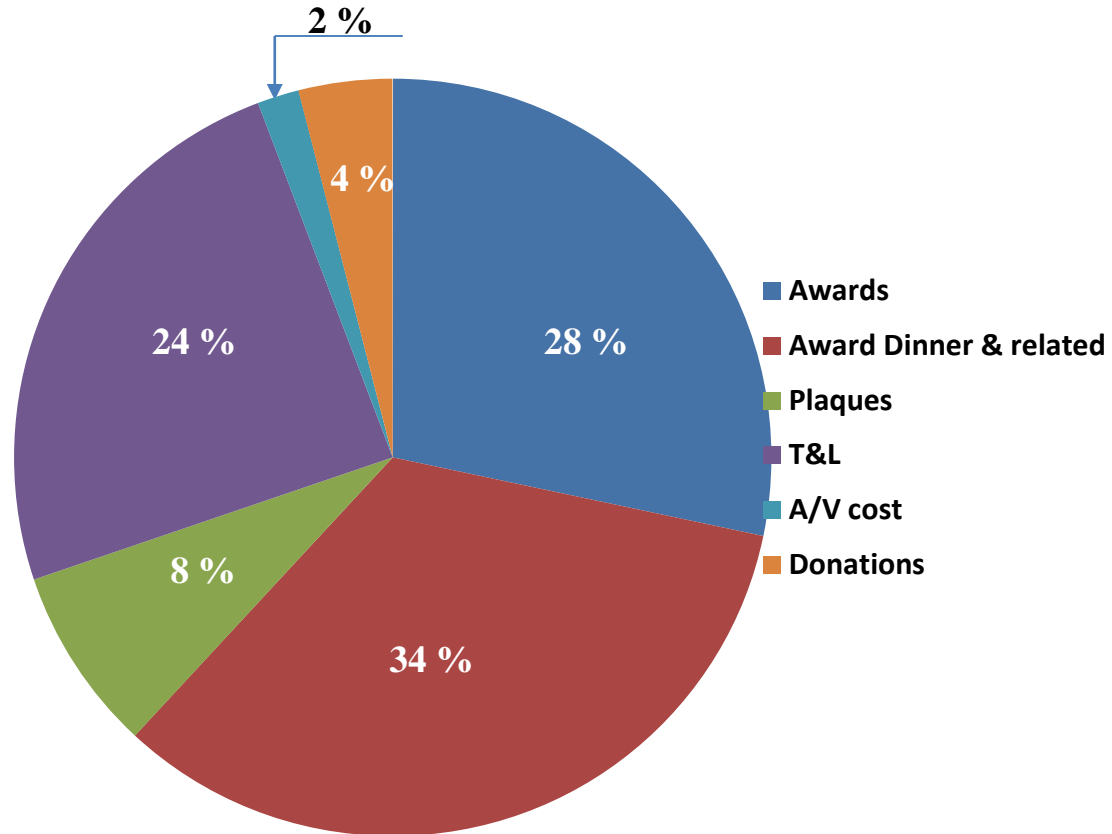
Revenue details for 2014

Members Dues	8,220.00
Donations	5,700.00
Award dinner revenue	3,300.00
Investment Income	151.27
Total Revenue	17,371.27



Expense details for 2014

Awards	5,300.00
Award Dinner & related	6,273.94
Plaques	1,477.26
T&L	4,569.09
Audio/Visual	332.08
Donations	750.00
Miscellaneous	7.24
Total Expense	18,709.61



AIChE Annual Meeting Concerns (1/3)

From: JoAnn Lighty <jlighty@utah.edu>
Sent: Friday, June 23, 2017 4:53 PM
To: Davis, Mark M
Cc: jeff@engr.uconn.edu; Robert S. Parker; Kristine Chin; JoAnn Lighty
Subject: AIChE Annual Meeting concerns

Dear Mark and Separations Division Leadership,

Thank you for voicing your concerns regarding the 2017 AIChE Annual Meeting's deadlines. First, as the current and future chairs of the Executive Board of the Program Committee, we feel that maintaining continuity between programming years is of the utmost importance. To ensure this continuity, we both have discussed the concerns you have outlined and have come up with a path forward to address them. Second, as you know, the goal for the last few years has been to transform AIChE conferences into important international events, bringing together thought leaders, researchers, practitioners and industry to both advance the chemical engineering profession and enable focused collaboration on key technical, industrial & societal challenges. Our response is in the context of this goal.

We sincerely apologize for the error that was made when setting the Call for Abstracts deadline. We are hoping to move toward a more consistent close date to avoid year-to-year confusion. To accommodate the earlier than usual Annual Meeting dates, the deadline was moved up exactly 4 weeks; in doing so, we inadvertently overlooked the surrounding holidays on the calendar. We have noted this and in future years will be sure to take into account major holidays when scheduling a deadline.

The decision to not extend the deadline was made for a few reasons. In general, the EBPC feels that deadline extensions ultimately diminish the reputation of a conference, since it gives the appearance that the level or quality submissions is very low. Furthermore, it gives a false sense of security, in that expectations arise that extensions will recur, potentially annually. Hence, extensions are only granted in cases where it is absolutely necessary in order to maintain the quality and quantity of meeting submissions.



AIChE Annual Meeting Concerns (2/3)

An official deadline extension for Annual has not happened since 2012. Unofficially, to help accommodate those who may have just missed the deadline, it is in our regular practice to leave the submission system open for a few days after the official close date, but we do not typically advertise this extension. This year, submission data was on par with historical submission rates for similarly-sized cities such as Atlanta (2014) and Salt Lake City (2015). These trends were also consistent for the Separations Division:

Abstract Submissions – SEP			
2017 Minn	2016 SF	2015 SLC	2014 ATL
509	530	478	510

Given this data, it was decided that our advertised CfA deadline, along with the 2-day submission grace period, would be sufficient. While we hope that you understand our assessment of the situation, we do understand that this may not have been communicated clearly, and the Division may not have felt that submission quality was up to par. Moving forward, we want to reiterate our commitment to raising the quality of the Meeting.

Should a similar situation arise in future planning years, we encourage you to reach out to EBPC for further discussion.

Finally, in keeping with our goal for increased communication, we would also like to propose an action plan to make sure that information is being communicated on a more frequent basis, and that this information is being communicated to the right people. For instance, while AIChE and EBPC tried to communicate these deadline changes through multiple emails and at the in-person meetings at both the Annual 2016 and Spring 2017 Meetings, we recognize that these communications may not be effective if the appropriate Division/Forum leadership is not being reached. To remedy this, we would like to propose a few additional avenues to aid in communications:



AIChE Annual Meeting Concerns (3/3)

1. AIChE Staff has agreed to organize quarterly calls with the division/forum programming leadership to provide more opportunities to communicate major changes, deadlines, or other items of interest to the groups. This will also be a great opportunity for the Divisions and Forums to voice any questions or concerns that they might have, which would allow EBPC to respond and resolve items as soon as possible.
2. We strongly encourage the Separations Division to send additional Division/Area level representatives to the Spring Programming Retreat and Fall Council of Division and Forum Officers meetings. These in-person meetings are vital to distributing information about any changes that might be happening at the major Meetings. Often, significant changes are first announced at these meetings, so having the appropriate leadership present will ensure that updates are being communicated correctly to those who it affects most. Because representation from all Divisions and Forums is a high priority for us, AIChE does have money put aside to help subsidize travel costs to encourage all divisions and forums to attend. If travel funds are a concern, we encourage your group to reach out to AIChE to see what funds might be available.
3. EBPC is always looking for diversity in their Division/Forum representation, and we are happy to announce that Prof. Jeffrey McCutcheon (copied) from the Separations Division has agreed to join EBPC as a Director. We expect this will aid communication with the Separations Division specifically, and we look forward to his contributions to major programming initiatives and participation in larger-view strategic planning for the Spring and Annual Meetings.

Should you have any questions or concerns about the information outlined above, please do not hesitate to contact us.

Sincerely,

JoAnn Lighty, EBPC Chair, 2017

Bob Parker, EBPC Vice Chair, 2017, EBPC Chair, 2018





SEPDIV Awards Report

2017 Fall Meeting

Minneapolis, MN

By Anand Vennavelli

2017 Award Responsibilities

	Responsibility	Committee Chair
Founders	Division Chair	No Nominations
Kunesh	Past Division Chair	Scott Husson
Innovation	Division Chair	Roger Whitley**
Education and Outreach	2 nd Vice Chair	No nominations
Awards Dinner	2 nd Vice Chair	Marcus Mello
GSRA	Awards Director facilitates thru Area Chairs	Anand Vennavelli
Gerhold		Paul Bryan

** Division Chair had a conflict of interest

Awards Director copied on all nominations in 2017 – made it easier to keep track of nominations, nominators, and award communications

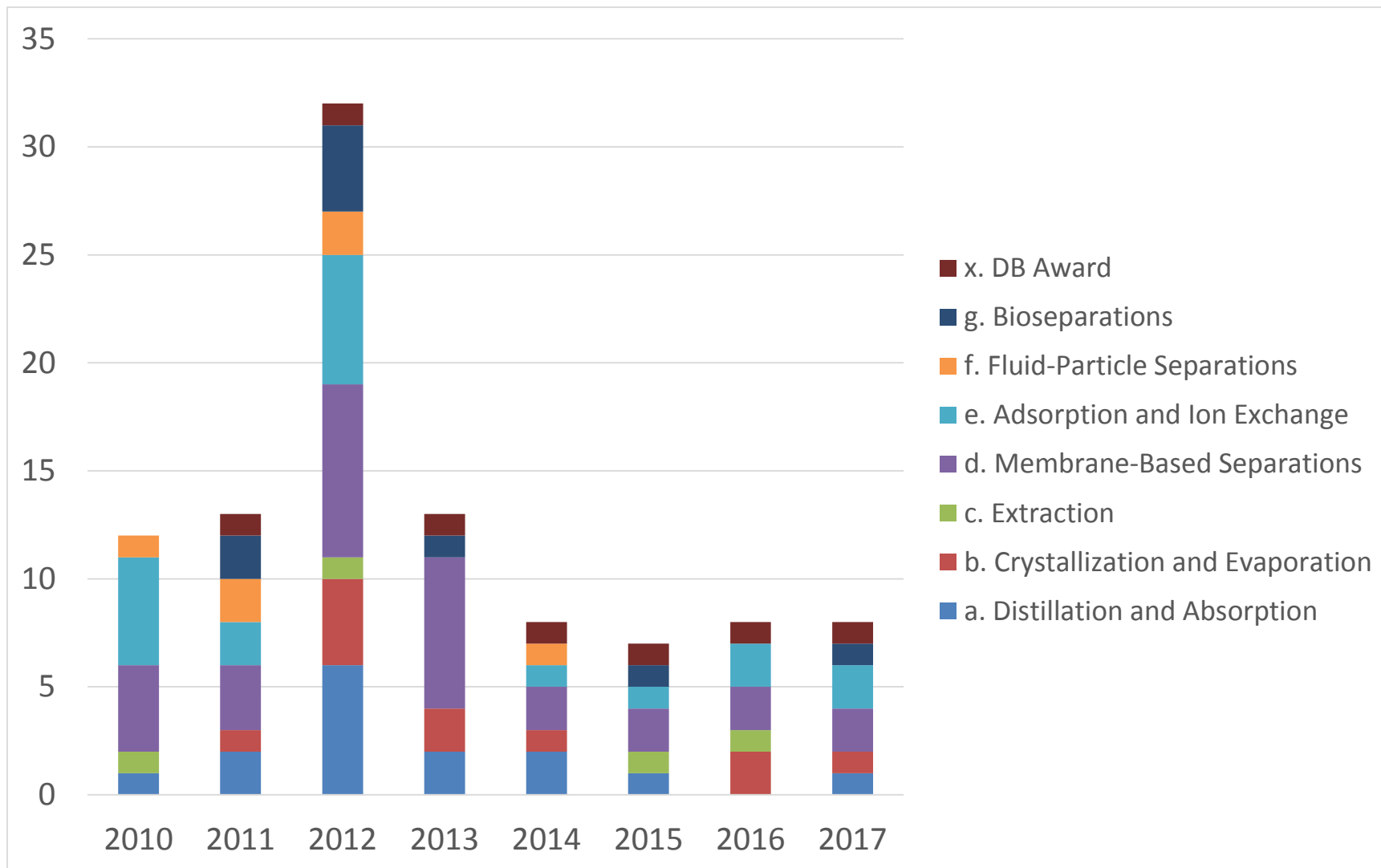
2017 Division Awards

- Gerhold Award
 - Andrew Zydney (Penn State)
- Kunesh Award
 - Jeffrey D. Rimer (Univ. of Houston)
- Innovation Award
 - Linda S. Cheng (Honeywell UOP)

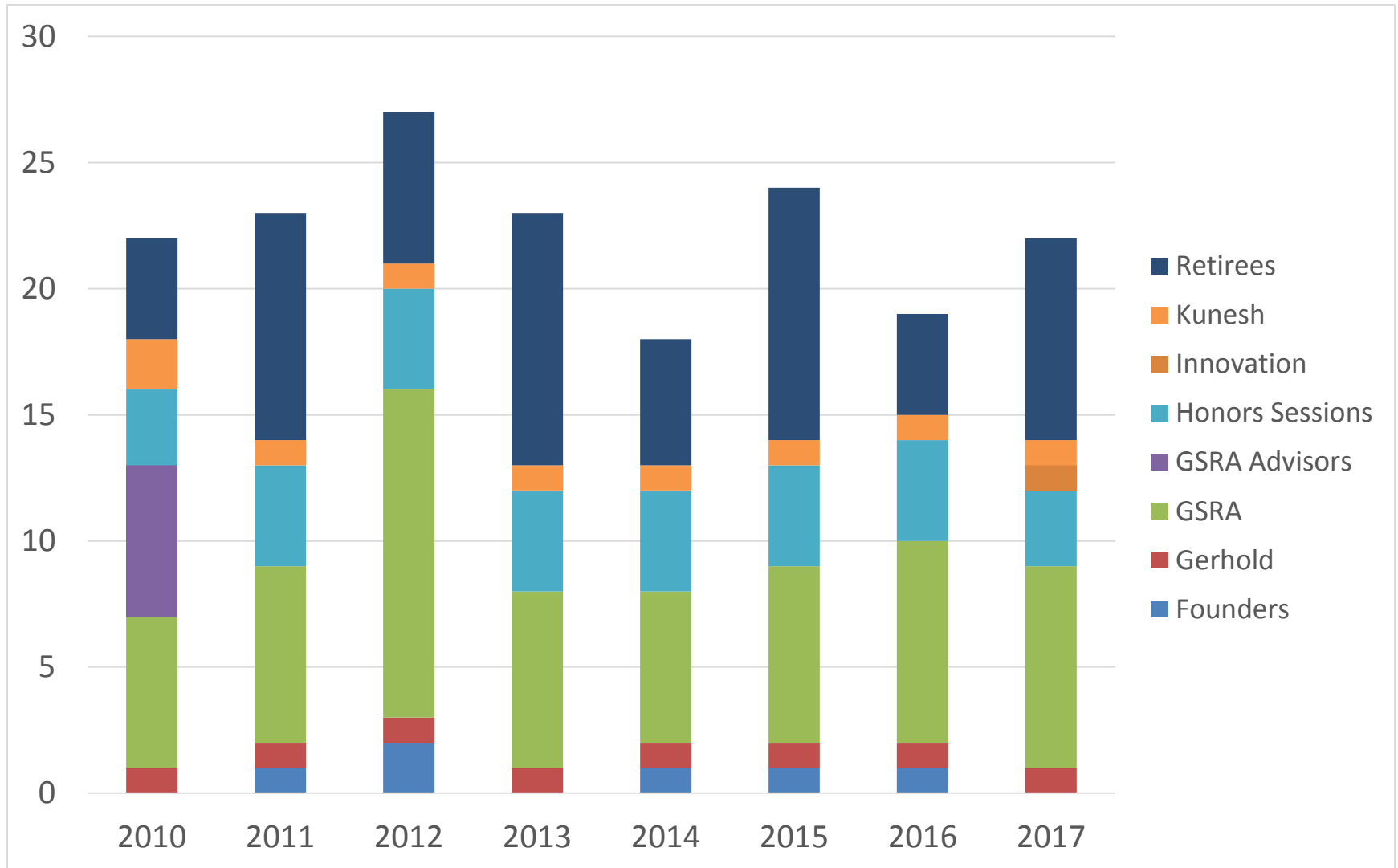
- San Antonio (Spring Meeting)
 - Neil Yeoman (Distillation and Absorption)
- Minneapolis (Fall Meeting)
 - Tony J. Cai (Distillation and Absorption)
 - William J. Koros (Membrane Based Separations)
 - Douglas M. Ruthven (Adsorption)

- Recipients chosen by Area Chairs: 2 max

Name	Advisor	University	Area
Thomas Linder	Wolfgang Arlt	Friedrich-Alexander-Universitat Erlangen-Nurnberg, Germany	2a
Shankul Vartak	Allen S. Myerson	Massachusetts Institute of Technology	2b
Dongzhu Wu	W.S. Winston Ho	The Ohio State University	2d
Jennifer Weidman	Ruilan Guo	University of Notre Dame	DB
Maqsd Chowdhury	Jeffrey R. McCutcheon	University of Connecticut	2d
Micheal Manto	Chao Wang	Johns Hopkins University	2e
Efrem Braun	Jeffrey A. Reimer	University of California, Berkeley	2e
Ketki Behere	Seongkyu Yoon	University of Massachusetts, Lowell, MA	2g



Plaques



October 26, 2016

Proposed Plenary Session

2018 AIChE Annual Meeting

October 28 – November 2, 2018

Convention Center, Pittsburgh, PA

Title: Major Separations Challenges in the Energy Industry

This special session will deliberate on major separations challenges in the energy industry from industrial, R&D and technology development perspectives. Presenters are welcome to contribute to the discussion of research efforts towards grand challenges in any separations areas facing the energy industry. Papers addressing major separations issues in distillation, fluid-particle separations, and any other areas of energy industry are welcome.

In addition, I am seeking research leaders working on separations as it relates to water, mainly in water desalination and treatment of waste water from power plants. The NETL is trying to develop a competency area in Separations.

Summary of Area succession plans

Area		2017	2018	2019
2a	Distillation & Absorption	Dan Summers Andrew Sloley	Dan Summers Andrew Sloley	Andrew Sloley Clint Aichele
2b	Crystallization & Evaporation	Mariana Tsianou Seth Huggins	Seth Huggins TBD in 2017	Seth Huggins TBD in 2017
2c	Extraction	George Goff TBD ASAP	TBD ASAP	TBD ASAP
2d	Membrane-Based Separations	Jeff McCutcheon Haiqing Lin	Haiqing Lin TBD in 2017	Haiqing Lin TBD in 2017
2e	Adsorption & Ion Exchange	Matthias Thommes Stefano Brandani	Stefano Brandani TBD in 2017	Stefano Brandani TBD in 2017
2f	Fluid Particle Separation	Isaac Gamwo Seyi Oduyungbo	Seyi Oduyungbo TBD in 2017	Seyi Oduyungbo TBD in 2017
2g	Bioseparations	Stephen Thiel Nick Merchant	Nick Merchant TBD in 2017	Nick Merchant TBD in 2017
2h	General Topics & Other Methods	Steve Ritchie Alice He	Steve Ritchie Joshua Thompson	TBD in 2018



Session programming plans/wishes – Oral sessions

Area		2017**		2017 Actual	2018	
		Spring	Fall	Fall	Spring	Fall
2	Separations Division	0	2+1*	2+1*	0	3
2a	Distillation & Absorption	7 + 2*	4	5	5 + 1*	5
2b	Crystallization & Evaporation	0	10	8	0	10
2c	Extraction	0	4	3	0	4
2d	Membrane-Based Separations	0	25	23	0	25
2e	Adsorption & Ion Exchange	0	15 + 1*	15+1*	0	17+1*+1*
2f	Fluid Particle Separation	2	4	1	1	3
2g	Bioseparations	0	3	2	0	4+1*
2h	General Topics & Other	0	3+1	1	0	3 + 1*
TOTALS		9 + 2*	72 + 6*	60+2*	6 + 1*	74+4*
TARGET			60			58



Session programming plans – Area 2 sessions

2017 Annual Meeting – Minneapolis, October 29

Plenary Session: Gerhold and Kunesh Awards on Separations

Rapid Fire Session: TED-SEP Separations Division

2018 Spring Meeting: Orlando, April 22-26

Distillation Symposium

2019 Spring Meeting: New Orleans, March 31-April 4 Kister Distillation Symposium



Future programming Deadlines

2018 Annual Meeting: Pittsburgh, October 28-November 2

- Wednesday, **November 29, 2017**
 - New Topical Conference Submissions Due
 - Please send me any ideas for topicals
- Monday, **December 18, 2017**
 - Sessions & Session Chairs Due
- Monday, **January 15, 2018**
 - Call for Abstracts Opens
- Monday, **April 16, 2018**
 - Call for Abstracts Closes



Future programming

2018 Spring Meeting: Orlando, April 22-26

2018 Annual Meeting: Pittsburgh, October 28-November 2

2019 Spring Meeting: New Orleans, March 31-April 4

2019 Annual Meeting: Orlando, November 10-15

2020 Annual Meeting: San Francisco, November 10-15

