CHED Newsletter
Fall 2014

Fall 2014 Election: Candidates & Statements
DivCHED Travel Award Deadline, September 14, 2015
William R. Robinson, 2014 Outstanding Service to the Division Awardee
AACT Launching September 2014

ACS 248th Nation Meeting
Chemistry and Global Stewardship
San Francisco, CA
August 8-14, 2014

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American Chemical Society
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Letters from the Executive Committee

From the Chair Elect, Marcy Towns, [mtowns@purdue.edu]

Summer greetings to all!

I hope that this newsletter finds you having a pleasantly paced and productive summer. We are getting ready for the BCCE at Grand Valley State University in just over two weeks. The program looks fantastic and there will be engaging presentations that can help improve classroom practices, laboratories, research endeavors, and many other things that touch our profession.

Next year I’ll become chair of the ACS division of chemical education. Simultaneously I am serving on the IUPAC Committee on Chemical Education as a national representative from the US. The efforts to improve chemical education around the globe are enormous. There is a great deal of effort taking place to develop materials K-12 that engage students in science, especially chemistry. Sustainability is also a focus on a worldwide scale.

There are a number of other initiatives that impact the division that are bubbling along. We continue to have our members recognized as ACS Fellows. This fall at the ACS meeting in San Francisco we will discuss the divisional process for securing nominations. Our division can support four candidates as ACS Fellows.

We continue to develop ways to engage our membership and to connect our members to initiatives and activities that add value to their personal and professional lives. I will look forward to working with you across the next two years!

Sincerely,
Marcy Towns
Chair-Elect, ACS DivCHED

From the Secretary/Councilor, Resa Kelly [resa.kelly@sjsu.edu]

The Fall DivCHED election, like clockwork, runs from September 1st through October 1st, 2014. Here is a list of the candidates:

Chair-Elect: Julie Smist and Thomas Greenbowe
Treasurer: Anna Wilson and Alexander Grushow
Councilor (1 position) and Alternate Councilor (1 position): Ellen Yezierski, Laura Slocum, Cinzia Muzzi and Jeff Hepburn

As usual, the election will run electronically; however, if we do not have your email address you will be sent the ballot through U.S. Mail. Short candidate biographies, including a picture, will first appear on the DivCHED website at least one month in advance of the election, then they will also be assessable for your review on the electronic ballot. There are no bylaw amendments for you to review this election.

The Board of Publication and the Exams Institute Board of Trustees are always looking to appoint future members. If you are unsure of what a Board position entails, but you are eager to learn of its operations, try attending the open session meetings of these Boards at the ACS National meeting in San Francisco. The Board of Publication meeting begins at 8:00AM and meets in room 120 of the North building of the Moscone Conference Center on Saturday, August 9th. The Board of Trustees of the Exams Institute meets a bit earlier at 7:30AM, in room 121 of the North Building of the Moscone Conference Center on the same day. You can tell them I sent you, but it isn't even necessary because the meeting is open. In fact, any meeting that is labeled “open” means you may attend so what are you waiting for? Let the exploration begin!

Safe travels to all of you making the conference circuit this summer. Hope to see you at the ACS meeting in San Francisco rockin’ those cool totes from the BCCE and humming tunes from Al D. Hyde and the Key Tones.
The View from the Program Chair, Irv Levy [irv.levy@gordon.edu]

The summer is in full swing as I compose this note – and there is a lot of action in the programming world of the Division of Chemical Education to report to you.

We are gearing up for the 248th national meeting this August in San Francisco. Many thanks are due to Amy Cannon and Cathy Middlecamp who have assembled this impressive array of symposia for this meeting. Kate Anderson has organized a number of our high school programs in the recent past and she has done a great job again in San Francisco. I hope that you’ll be able to join us in San Francisco and, please, take the time to personally thank Amy, Cathy, and Kate for their work on your behalf.

It is often the case that the “fall” meeting has a sparser program than the “spring” meeting. That is certainly not the case in San Francisco! There is an impressive array of programming, some of which is explicitly linked to the theme “Chemistry & Global Stewardship”. We also have sessions that are designated as Presidential events. These sessions helped us make the case to locate our program in the Moscone Center in San Francisco, rather than in an adjacent hotel property. The success in the past two spring meetings of the oral Undergraduate Research Papers, combined with the popularity of San Francisco as a destination prompted us to offer a URP session at this meeting. We are delighted that 17 students will make a presentation.

There are a number of special events in the SF program that might interest you:

Advancing Chemistry and Communicating Chemistry – celebrating Bassam Shakhashiri’s 75th birthday. This day-long symposium on Monday will bring an elite group of speakers to our program in what is sure to be a lively event.

An International Student Summit on Global Climate Change – thanks to the dedication of Keith Peterman and Greg Foy, and support from MPPG and IAC, we will host a unique session on Tuesday at noon in Esplanade Ballroom 308. You can participate in student presentations occurring in five nations (Costa Rica, Israel, Malaysia, Poland, and US) via video linkage. Pizza & soda will be served.

Sustain-Mix – brings speakers from 25 of the ACS technical divisions along with three keynote speakers to discuss ways that chemists in the various divisions approach sustainability. Your program chair and Cathy Middlecamp organized this symposium. The Division has received the support of an IPG grant that, in part, will fund a luncheon reception open to all on Sunday in Moscone Center, South Building, Esplanade Ballroom 306. Come and have a bite and help us develop deeper linkages and sustainability strategies between divisions in the society. Please help us “pack the house”!

As always, there are a number of people behind the scenes who provide direct and indirect support for our programming at a national meeting. Many thanks to the ACS staff who are the ones who help us bring it all together: Robin Green, Brenda Philpot, Beverly Johnson, Vernar Beaty, Nikki Fisher and Nicole DiFabio are a great team and I very much enjoy working with them. As always Heather Johnson attends to a host of details that make the job of organizing a meeting so much more convenient. Many thanks are due to all the folks in the Division and ACS who work with our committee to produce a quality meeting.

The PACS system is officially gone as far as programming for future ACS meetings. This summer we have begun the transition to the “Meetings Abstract Programming System” that will be referred to as MAPS. I serve on the MAPS Advisory Board that selected the system and several of us from the division have participated in the testing of the new system. While there is a learning curve for any new system, the early indication is that we have made a great change. The submission of the Call For Papers for Denver was much easier with MAPS (and our ACS Liaison, Kelsey Danner) than it would have been in PACS.

Nonetheless, since MAPS will be new to all of us I strongly encourage you to submit early for the spring meeting. MAPS will open on August 25 and close for authors on November 3. We will send a number of reminders to the members but I would request that you set an informal deadline of October 27 – insuring that, if any issue causes a problem, we can resolve issues in a calm and gentle way. Your program chair and meeting co-chairs, Wayne Jones and Andy Marsh, will very much appreciate it if you submit early!

Undergraduate students comprise the bulk of our program in the spring. Please remind your students to be aware that their posters should be submitted to our division in one of the Undergraduate Research Poster categories, typically, rather than in one of the other technical divisions. Also, students who wish to make an oral presentation in the division will be able to do so through the Undergraduate Research Papers session.

Right after the abstracts close for Denver we will need to publish the Call For Papers for the August 2015 meeting in Boston. Please be thinking about your ideas for compelling symposia for that meeting, especially ones that link to the meeting theme “Innovation From
Discovery to Application. You can begin to send those ideas to me or to the meeting co-chairs Beatriz Rios-McKee and Iona Black.

Remember that my goal as the chair of your Program Committee is to make it easy for you to say “Yes, I’ll volunteer” by providing any support you might need. I look forward to working with you in the future whether it be as a symposium organizer, a meeting co-chair, or a member of the program committee. We are here to produce national meetings that serve your needs. Please do let us know what those needs are and do consider what role you might be able to play as a volunteer. Drop me a note (irv.levy@gordon.edu) with your ideas or say hello in San Francisco!

From the Member-At-Large, Jimmy Reeves [reeves@uncw.edu]

I’m happy to report that contracts proposed by the Board of Trustees of the ACS Examinations Institute for both Tom Holme, its Director, and Kristen Murphy, the Assistant Director, have been agreed to and signed by both parties. Additional good news came with notification from Iowa State University that the current agreement to house the Institute on the campus and maintain benefits for its staff through the university has been extended for three more years. Concern that the issue of employee benefits might derail this extension had prompted the Board to consider other alternatives such as moving the business operations of the Institute to a private, permanent location. Despite this agreement that discussion will continue, but the urgency has thankfully been removed. A new business manager has been hired to replace Julie, who has been hired to oversee the expansion of the Institute’s capacity to deliver on-line exams to large numbers of students simultaneously. As you might imagine, the need to maintain security for all of our online materials creates a complicated set of procedures, and her job will be to streamline the process while maintaining the necessary security. Finally, we say goodbye to Stacey Lowery Bretz, who has been a member of the Board of Trustees for 12 years, and its Chair for six. Stacey has served the Institute with great distinction, and much of our current success can be traced to her hard work. She will be sorely missed. Her successor will be Alex Grushow (Chair Elect), Chair of Chemistry at Rider College and a current Board member.

At the Executive Committee meeting in Dallas (Spring 2014) Don Wink, Division President, announced a concerted effort to increase the effectiveness of our committees, by encouraging Chairs to provide minutes of their meetings that describe their current efforts and future directions. He also announced that a comprehensive plan was being drafted to alleviate the problems associated with the “growing pains” of the BCCE. As I reported previously, the conference has grown in attendance and represents a major organizational effort for the host institution and its staff. Improving efforts to recruit meeting locations and provide sufficient financial and logistical support will be key components of the plan. On a related note, consolidation of the Division’s finances is progressing, and a plan for investing our resources and providing a more informative financial picture under active review.

We look forward to the BCCE at Grand Valley State. As your Member at Large, I am available to forward your concerns and questions. If you are interested in learning more about the work of the division and how you can participate, don’t hesitate to contact me or one of the other Executive Committee members. If you are new to the Division and will be attending the BCCE, stop in at the New Members lunch on Monday, where members of the Board of Trustees and the Executive Committee will be available to answer your questions and let you know about the exciting opportunities available to participate in our activities.

Know Your Way Around the Division

If you need to pay membership dues, want to make a contribution to the DivCHED Service Award fund, or want to know about money, budgets, etc., contact the Treasurer.

If you want to change your mailing address, want a Division publication, or want to know about official Division actions, etc., contact the Secretary. If you want to receive this CHED Newsletter (or not receive it), contact the Secretary.

If you want to bring an idea before the Executive Committee or want to make an opinion known, contact the Member-at-Large.

If you want to contribute something to CHED News, contact Heather Johnson.
248th ACS Meeting & Exposition, San Francisco

Theme: Chemistry and Global Stewardship March 16 - 20, 2014

Meeting Co-Chairs:
Cathy Middlecamp, University of Wisconsin - Madison, 1101 University Avenue, Madison, WI 53706, Voice: 608-263-5647, cathy@chem.wisc.edu
Amy Cannon, Beyond Benign, 100 Research Drive, Wilmington, MA 01887, Voice: 978-229-5450, amy_cannon@beyondbenign.org

High School Program Chair:
Kate Anderson, Beyond Benign, 100 Research Drive, Wilmington, MA 01887. Voice: 978-229-5454, Kate_Anderson@beyondbenign.org.

CHED Program Chair:
Irvin J. Levy, Gordon College, 255 Grapevine Road, Wenham, MA 01984. Voice: 978-867-4877, irv.levy@gordon.edu

GSSPC Organizers:
Kimberly Hartstein (hartsk@uw.edu) and others from the University of Washington “International Collaborations with International Impact: Chemistry for Global Change”

Program Synopsis
(Full abstract list can be found at http://www.divched.org/sites/default/files/CHED_Separates_SanFran.pdf)

SUNDAY MORNING

High School Program
K. Anderson, Organizer; K. Anderson, Presiding Papers 1-7

Sustain-Mix: Sustainability Across the Society
I. Levy, Organizer; C. Middlecamp, Organizer; C. Middlecamp, Presiding; I. Levy, Presiding Papers 8-16

Undergraduate Research Papers
N. Snyder, Organizer; C. Gauthier, Organizer; J. Miecznikowski, Organizer; J. Ruppel, Organizer; S. Jain, Presiding Papers 17-24

Chemistry Education Research
M. Cooper, Organizer; T. Larson, Organizer; T. Larson, Presiding Papers 25-30

NSF-Catalyzed Innovation in the Undergraduate Curriculum
C. A. Burkhardt, Organizer; R. Boggess, Organizer; R. Boggess, Presiding Papers 31-39

SUNDAY AFTERNOON

High School Program
K. Anderson, Organizer; K. Anderson, Presiding Papers 40-45

Sustain-Mix: Sustainability Across the Society
I. J. Levy, Organizer; C. Middlecamp, Organizer; I. J. Levy, Presiding; M. Fisher, Presiding Papers 46-54

Undergraduate Research Papers
J. Miecznikowski, Organizer; J. Miecznikowski, Presiding Papers 55-63

Chemistry Education Research
T. Larson, Organizer; M. Cooper, Organizer; T. Larson, Presiding Papers 64-69

SUNDAY EVENING

General Posters
D. Bromfield-Lee, Organizer Papers 78-119

MONDAY MORNING

Advancing Chemistry and Communicating Chemistry: Looking Around and Looking Ahead with Bassam Shakhashiri
J. Bell, Organizer; R. Schreiner, Organizer; J. Bell, Presiding; R. Schreiner, Presiding Papers 120-127

Sustain-Mix: Sustainability Across the Society
C. Middlecamp, Organizer; I. J. Levy, Organizer; C. Middlecamp, Presiding; M. Fisher, Presiding Papers 128-137

Innovative Laboratory Experiments and Programs
D. A. Katz, Organizer; D. A. Katz, Presiding Papers 138-146

Questioning the Unquestionable: What Should Students Learn in General Chemistry?
M. Cooper, Organizer; T. Holme, Organizer; M. Cooper, Presiding Papers 147-152

Global Perspectives in Chemical Education: Research and Practice
C. Gauthier, Organizer; R. Kelly, Organizer; C. Gauthier, Presiding; R. Kelly, Presiding Papers 153-159
MONDAY AFTERNOON
Advancing Chemistry and Communicating Chemistry:
Looking Around and Looking Ahead with Bassam Shakhashiri
J. Bell, Organizer; R. Schreiner, Organizer; J. Bell, Presiding; R. Schreiner, Presiding Papers 160-168
Chemistry and Global Stewardship
S. Bachofer, Organizer; A. Cannon, Presiding Papers 169-174
Innovative Laboratory Experiments and Programs
D. A. Katz, Organizer; D. A. Katz, Presiding Papers 175-182
Questioning the Unquestionable: What Should Students Learn in General Chemistry?
M. Cooper, Organizer; T. Holme, Organizer; T. Holme, Presiding Papers 183-187
Global Perspectives in Chemical Education: Research and Practice
C. Gauthier, Organizer; C. Gauthier, Presiding Papers 188-193
Undergraduate Research Posters
MONDAY EVENING
Sci-Mix
Successful Student Chapter Posters
N. Di Fabio, Organizer Papers 351-358
TUESDAY MORNING
International Collaborations with International Impact:
Chemistry for Global Change
K. Hartstein, Organizer; C. Barrows, Organizer; C. Barrows, Presiding; S. Vorpahl, Presiding Papers 359-362
Global Stewardship by Increasing Climate Science Literacy
G. Foy, Organizer; K. Peterman, Organizer; K. Peterman, Presiding Papers 363-369
Advances in Teaching Organic Chemistry
S. Hornbuckle, Organizer; S. Hornbuckle, Presiding Papers 370-378
Citizens First: Using Real-World Contexts for Engaging Students in Learning Chemistry
C. Middlecamp, Organizer; P. Daubenmire, Organizer; C. Middlecamp, Presiding; P. Daubenmire, Presiding Papers 379-387
An International View on Chemistry Education
C. Larive, Organizer; E. Arriaga, Organizer; C. Larive, Presiding; E. Arriaga, Presiding Papers 388-395
TUESDAY AFTERNOON
An International Student Summit on Global Climate Change
G. Foy, Organizer; K. Peterman, Organizer; G. Foy, Presiding Papers 400
International Collaborations with International Impact:
Chemistry for Global Change
C. Barrows, Organizer; K. Hartstein, Organizer; C. Barrows, Presiding; S. Vorpahl, Presiding Papers 396-399
Global Stewardship by Increasing Climate Science Literacy
K. Peterman, Organizer; G. Foy, Organizer; G. Foy, Presiding Papers 401-407
Advances in Teaching Organic Chemistry
S. Hornbuckle, Organizer; S. Hornbuckle, Presiding Papers 408-416
Citizens First: Using Real-World Contexts for Engaging Students in Learning Chemistry
C. Middlecamp, Organizer; P. Daubenmire, Organizer; C. Middlecamp, Presiding; P. Daubenmire, Presiding Papers 417-426
And They Are Off! Fast Tracking the Undergraduate Research Experience
E. Aleman, Organizer; K. Stone, Organizer; E. Aleman, Presiding; K. Stone, Presiding Papers 427-433
WEDNESDAY MORNING
Reaching Out: Chemistry Outreach Programs for High School and Community College Students
H. Schepmann, Organizer; H. Schepmann, Presiding Papers 434-442
Active Learning in the Chemistry Classroom
J. Selco, Organizer; J. Selco, Presiding Papers 443-448
Assessing Student Success in Chemistry
N. Peters, Organizer; N. Peters, Presiding Papers 449-454
Teaching Analytical Method Transfer
I. Kimaru, Organizer; K. Chichester, Organizer; M. Koether, Organizer; I. Kimaru, Presiding Papers 455-463
General Papers
S. Fleming, Organizer; K. Deards, Presiding Papers 464-471
WEDNESDAY AFTERNOON
Perspectives on Graduate Education in the Chemical Sciences
J. Z. Sostaric, Organizer; M. Kirchhoff, Organizer; J. Z. Sostaric, Presiding Papers 472-477
Active Learning in the Chemistry Classroom
J. Selco, Organizer; J. Selco, Presiding Papers 478-484
Science Education and Civic Engagement: The Role of Undergraduate Research
R. Sheardy, Organizer; R. Bishop, Presiding; R. Sheardy, Presiding Papers 485-491
Chemistry Education Research
J. Lewis, Organizer; M. Stains, Organizer; M. Stains, Presiding; T. J. Lund, Presiding Papers 492-499
General Papers
S. Fleming, Organizer; K. Castle, Presiding Papers 500-506
THURSDAY MORNING
General Papers
S. Fleming, Organizer; C. Schaller, Presiding Papers 507-515
General Papers
S. Fleming, Organizer; M. Schmidt, Presiding Papers 516-524
Schedule of CHED Committee Meetings and Social Reception

All CHED events will be held at the Moscone Center
747 Howard Street
San Francisco, CA 94103
(415) 974-4000

Saturday, August 9, 2014
Exams Institute, Board of Trustees Meeting (open)
  7:30AM – 12:00PM
  Location: Room 121, North Building

Board of Publications Meeting (open)
  8:00AM – 12:30PM
  Location: Room 120, North Building

Program Committee Meeting (open)
  10:30AM – 12:00PM
  Location: Room 122, North Building

Executive Committee Meeting
  Location: Room 123, North Building
  1:00PM – 1:30PM (closed)
  1:30PM – 4:00PM (open)
  4:00PM – 5:30PM (closed)

Sunday, August 10, 2014
International Activities Committee Meeting (open)
  8:00AM – 9:30AM
  Location: Rooms 202/204, South Building

Finance Committee (closed)
  9:30AM – 11:30AM
  Location: Rooms 202/204, South Building

Regional Meetings Committee (open)
  12:00PM – 2:00PM
  Location: Rooms 202/204, South Building

Long Range Planning Committee Meeting (open)
  2:30PM – 4:30PM
  Location: Rooms 202/204, South Building

High School Chemistry Committee Meeting (open)
  3:30PM – 5:30PM
  Location: Rooms 252/254, South Building

CHED Social Reception (open)
  5:30PM – 7:00PM
  Location: Esplanade Ballroom 310, South Building
**HOURS OF OPERATION**

**ROUTES 1 & 2 SHUTTLE SCHEDULE**

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<td>Tuesday, August 12</td>
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<td>Wednesday, August 13</td>
<td>7:00 AM - 11:00 PM (30 minute service)</td>
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<td>Thursday, August 14</td>
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**ROUTES 3 & 4 SHUTTLE SCHEDULE**

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<td>Thursday, August 14</td>
<td>7:00 AM - 6:00 PM (60 minute service)</td>
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**SAN FRANCISCO MAP**

**LEGEND**
- Blue route 1
- Green route 2
- Red route 3
- Orange route 4
- White walk to Convention Center

**Scan to download this document on to your smart phone or device.**

For all shuttle and wheelchair assistance inquiries, please call: 1-866-439-8564
2014 Biennial Conference on Chemical Education

Grand Valley State University, Allendale MI
www.bcce214.org

Theme: Greener on the Grand
August 3-7, 2014

Workshop Chair:
Stephanie Schaertel, schaerts@gvsu.edu
Department of Chemistry,
Grand Valley State University

Program Chair:
Julie Henderleiter, henderlj@gvsu.edu
Department of Chemistry,
Grand Valley State University

General Chair:
Sherril Soman, somans@gvsu.edu
Department of Chemistry,
Grand Valley State University

Full Conference Program can be viewed at http://www.bcce2014.org/conference_program.html

249th ACS Meeting & Exposition, Denver, CO
Theme: Chemistry of Natural Resources
March 22-26, 2015

Meeting Co-Chairs:
Wayne Jones, Binghamton University, State University of New York, 4400 Vestal Parkway East, Binghamton, NY 13902
Voice: 607-777-2421, wjones@binghamton.edu

Andy Marsh, Lebanon Valley College, 101 N. College Avenue, Annville, PA 17003-1400, Voice: 717-867-6149, marsh@lvc.edu

High School Program Chair:
Sally Mitchell, East Syracuse Minoa High School, Science Department, 6400 Fremont Rd., East Syracuse, NY 13057-9463, sbMitchell2@gmail.com

CHED Program Chair:
Irvin J. Levy, Gordon College, 255 Grapevine Road, Wenham, MA 01984. Voice: 978-867-4877, irv.levy@gordon.edu

GSSPC Organizers:
Karen Antonio (kantonio@nd.edu) and others from University of Notre Dame “Biocatalysis: Creating a Sustainable Future”

While BCCE and San Francisco are coming quickly, planning is already underway for the Denver ACS meeting program in the Division of Chemical Education. PACS will no longer be with us in Denver. We will be transitioning to a new system called MAPS which will go live with abstracts on August 25, 2014. We are finalizing the list of symposium for Denver. There are still a few open slots. If you would like to add a symposium, please email Wayne Jones, wjones@binghamton.edu, and Andy Marsh, marsh@lvc.edu, with a proposed title, organizers and abstract as soon as possible.
**ConfChem Online Conference: Interactive Visualizations for Chemistry Teaching and Learning**

**May & June, 2015**

Visualizations in chemistry education – animations and simulations – provide powerful resources to support students’ conceptual understanding, as well as the representational fluency needed to envision the particulate level world, communicate through chemical symbols, and make connections to the observable world. Advances in technology and access to technology in classrooms have allowed for increasingly interactive visualizations to emerge. With the rise of the tablet, putting interactive visualizations in the hands of students creates tremendous opportunities for engagement with pedagogically rich interactions and interfaces as well as challenges for visualization design and understanding of student learning.

For this virtual conference, we seek submissions focused on the following components of research into educational interactive visualizations for chemistry:

- **Design.** What challenges have been faced when designing interactive visualizations, and what has been learned so far? What are emerging design principles that meet the needs of teachers and students of chemistry?
- **Learning.** What is known about how students learn from specific components of interactive visualizations? What research methodologies and assessment techniques provide insight into student learning with visualizations?

After the conference, contributors will have the option of submitting communications of their papers to the JCE ConfChem Feature for peer review.

Anyone interested in submitting a paper should contact Emily Moore at the University of Colorado, emily.moore@colorado.edu.

**Relevant Dates:**
- January 15, 2015  Titles and abstracts due (1 page maximum)
- March 15, 2015  Full papers due
- May 8, 2015  Conference starts

**Future ACS National Meetings**

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<tr>
<td>March 22-26, 2015</td>
<td>249th ACS National Meeting &amp; Exposition Denver, Colorado Program Theme: Chemical Resources: Extraction, Refining and Conservation</td>
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<tr>
<td>August 16-20, 2015</td>
<td>250th ACS National Meeting &amp; Exposition Boston, Massachusetts Program Theme: A History of Innovation: From Discovery to Application</td>
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<tr>
<td>March 13-17, 2016</td>
<td>251st ACS National Meeting &amp; Exposition San Diego, California</td>
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<td>April 2-6, 2017</td>
<td>253rd ACS National Meeting &amp; Exposition San Francisco, California</td>
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**2014 ACS Regional Meetings**

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<th>Region</th>
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Announcements, Materials & Opportunities

DivCHED Election—Vote Fall 2014 for 2015 Executive Committee Members

The candidates for the upcoming DivCHED election are:

**Thomas Greenbowe: Chair Elect**

Thomas James Greenbowe has served as a faculty member in the Department of Chemistry at Iowa State University since 1990. He served sixteen years as the Coordinator of General Chemistry. Prior to ISU he was an Associate Professor at the University of Massachusetts–Dartmouth, and a high school physics and chemistry teacher in New Jersey and Indiana. He has two sabbatical leave experiences, one at the University of Arizona (2006) and one at the University of Oregon (2013-2014). Over the past forty years, Professor Greenbowe has taught over 30,000 students and facilitated professional development workshops on computer animations & simulations, Process Oriented Guided Inquiry Learning, the Science Writing Heuristic, and AP Chemistry for 3,000 science teachers and college faculty in the USA, Canada, New Zealand, Croatia, and United Arab Emirates. Greenbowe and his colleagues have published over 50 papers, articles and monographs about chemistry education. His research and scholarship has received financial support from the National Science Foundation, U. S. Department of Education, and the Howard Hughes Medical Institute.

Greenbowe served as Chair of the 1995 ACS General Chemistry Examination; General Chair of the (2004) 18th Biennial Conference on Chemical Education; member of the College Board, AP Chemistry Test Development Committee (2007 – 2012); AP Chemistry Reader, Table Leader, and Question Leader (2008-2014); on the Board of Trustees (2007 – 2009); Chair (2008) of DivCHED; Chair of the 2009 Gordon Research Conference on Chemical Education Research and Practice; committee member on the 2014 General Chemistry Laboratory Practical Computer Scenario Exam; member and friend of the Biennial Conference Committee (2000- 2013); Chair of the Biennial Conference Committee (2014- current); member and friend of the Chemistry Education Research Committee (2006 – current); and Co-Chair of the 2015 ACS General Chemistry Conceptual Exam Committee. In 2013, Iowa State University named Thomas Greenbowe a Morrill Professor.

**Julianne Smist: Chair Elect**

I have been a member of ACS since 1972; a member of the Division since the early 1980s. After receiving a Master’s degree in physical chemistry from Boston College, I started my teaching career at Cathedral High School in Springfield, Massachusetts in 1975. Two years later, I moved into college teaching as a Laboratory Instructor and Adjunct Lecturer at several colleges in Western Massachusetts, ending up at Springfield College in 1981. I was promoted to Professor in 1996, after completing my doctorate in Educational Psychology at the University of Connecticut. I was appointed Chair of the Biology/Chemistry department in August 2013.

I have served the Division as Chair of the Membership Committee (2005-2007) and Program Chair (2008-2010). Currently I am a member of Committee on Personnel and Nominations and the Program Committee. Most recently, I served as meeting co-chair in Indianapolis (August, 2013) and will be Program Co-chair for the 2016 BCCE.

Nationally, I have been an ACS Councilor representing the Connecticut Valley Section (CVS) since 2000. I served on the Meetings and Exposition Committee for six years. For two of those years, I chaired the subcommittee responsible for recommending National meeting sites. Currently I am on the Divisional Activities Committee serving as co-chair of the meetings subcommittee and committee Secretary. Regionally, I served four terms (2005-2013) as Chair of the Board of Directors of the Northeast Region (NERACS, Inc.). The Northeast Region encompasses eighteen local sections covering all of New England and most of New York. The NERACS Board is responsible for awarding bids to host NERM (Northeast Regional Meeting). When CVS hosted NERM 2009, I served as General Chair.

I am proud to be a chemical educator and have worked diligently to bring the work of the members of the Division to the attention of ACS. At ACS National we are thought of as a strong, vibrant, respected Division, I will work hard to keep it that way.
**Jeff Hepburn: Councilor/Alternate Councilor**

Jeff obtained his B.A. in Chemistry from the University of Northern Iowa and his M.S. in Science Education from University of Iowa. He is a retired instructor having taught most recently at Central Academy in Des Moines, Iowa. He taught AP and IB Chemistry with Dual Credits through Des Moines Area Community College. Service in ACS can be seen in many roles for the DivCHED such as an Alternate Councilor member of the Executive Committee, High School Committee Co-Chair and current chair of the High School Committee, prior High School Committee member, Biennial Conference Committee member, National Pre College Co-Chair for the 18th BCCE, Poster Co-Chair for 20th BCCE, and DivCHED Task Forces. He is an ACS member of the Division of Chemical Education and the History of Chemistry.

Presentation/education is supported by different ACS/SOCED Task Forces such as the National Chemistry Teacher’s Alliance Investigation Committee and the dissemination of the Guidelines for Teaching High School Chemistry. He has been a Symposia Chair for multiple BCCE Symposia and presented over 20 ACS presentations at various ACS Regional, National and BCCE meetings. These presentations are part of the 150 total presentations he has given around the world.

Measurement/evaluation is demonstrated by his role as a committee member or chair for various regional or national High School Award committees and is a member of the Journal of Chemical Education Editorial Advisory Board. He has also written questions on four different ACS Advanced High School Exams and served as Committee Secretary for the 2010 Exam. He has also written questions for three different ACS National Chemistry Olympiads. Jeff won the Mid-West Regional Award for Excellence in High School Teaching in 2009 and won the national James Bryant Conant Award in 2010.

Jeff strongly supports the continuity of chemical education starting from Pre College through all higher levels of education. All of these are essential components for a strong Division of Chemical Education. He feels he would be an excellent candidate with his extensive high school experience as the new American Association of Chemistry Teachers group begins later this year.

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**Cinzia Muzzi: Councilor/Alternate Councilor**

I am a tenured faculty member at De Anza College in Cupertino, CA. I received a Bachelor of Arts and Science in Spanish and Chemistry from U.C. Davis and a Ph. D in Organic Chemistry, U.C. Davis (1999). I joined De Anza College in 2004 after becoming a tenured faculty member at Truckee Meadows Community College in Reno, NV (1999-2004). I will be the De Anza College Chemistry Department Chair starting in fall 2014. I teach a wide variety of courses including preparatory, general and university parallel organic chemistry classes, and I have served on a number of campus committees such as De Anza’s Institutional Planning and Budget Team. De Anza College serves approximately 20,000 students annually with one of the top transfer rates to California universities.

I have been a member of the American Chemical Society (ACS) for 20+ years first serving as a graduate student session chair at the 213th and 214th ACS meetings. Since that time I have served the society in a number of ways. I am currently the chair of the division's Committee on Personnel and Nominations (2002-present, chair: 2012-2014). I have served on the division’s Programs Committee (2001-2013) co-chairing two meeting programs at national ACS meeting in San Diego (2005) and San Francisco, CA (2010). I will again serve as a meeting program co-chair at the 2017 ACS meeting in San Francisco, CA. I have also had several roles at the local section level. I served as secretary/treasurer (2001-02), chair-elect (2002-03), chair (2003-04) as well as the National Chemistry Week Coordinator (2000-2004) for the Sierra Nevada local section. I am currently a member of the Santa Clara Valley local section, and I recently received the section’s Teacher Scholar Award (2012). Finally, I have served as a reviewer for the Journal of Chemical Education, a grant reviewer for the National Science Foundation, and I have contributed to the profession through publications such as *And Gladly Teach: A Resource Book for Chemists Considering Academic Careers* and the *Survival Hand Book for the New Chemistry Instructor.*
Laura Slocum: Councilor/Alternate Councilor

I have been teaching for 23 years and currently teach high school chemistry at Heathwood Hall Episcopal School in Columbia, SC. I have been actively involved in the Division of Chemical Education in various ways since 1995 when I served on my first exam committee for the ACS Examination Institute. Since that time, I have chaired two First Year High School exams and now I chair the committee that is writing the High School Conceptual Exam that will be available in 2016.

From 2006-2008 I served as an Alternate Councilor to the Division, but when I became the Assistant Precollege Editor for the Journal of Chemical Education, from 2007-2011, I knew that I needed to step out of that role at that time. I also served on the Board of Trustees for the Examinations Institute from 2004-2012. Currently I serve the Division of Chemical Education as a member of the Long Range Planning Committee and the High School Committee.

I was the High School Program Chair for the 2006 BCCE at Purdue and will be serving in that capacity once again for the 2016 BCCE at University of Northern Colorado. I have greatly appreciated the interactions that I have experienced between high school and college faculty. They have been very valuable to me and many of my colleagues and I want to work to further those for others, too.

Ellen Yezierski: Councilor/Alternate Councilor

It is an honor to be nominated to continue my service to the Division of Chemical Education as your Councilor/Alternate Councilor. I received a B.S.Ed. in chemistry from the University of Arizona in 1989, taught high school chemistry for 7 years, and earned an M.Ed. in secondary education from Northern Arizona University in 1996. Pursuing my interest in teacher development, I earned a Ph.D. in Curriculum & Instruction (Science/Chemistry Education) from Arizona State University in 2003. I spent 7 years at Grand Valley State University in Allendale, Michigan and now am in my fourth year as an Associate Professor in the Department of Chemistry & Biochemistry at Miami University in Oxford, OH. My research group studies the dynamics and products of chemistry instruction in a variety of settings.

I previously served on the DivCHED Long Range Planning Committee and am currently on the High School Committee, the Board of Publication, and the Journal of Chemical Education Editorial Advisory Board. In the Society, I serve on the ACS-Hach Board and have recently been appointed as an Associate to the Society Committee on Education (SOCED). My last three years as your Councilor and three years before that as your Alternate Councilor have been active and have focused on the examination of programs to improve operations and delivery of services to members. The most noteworthy recent initiative is the DivCHED Travel Award Program. I helped to lead my fellow Councilors and Alternate Councilors as we developed and implemented the program to provide travel awards to 22 members with financial support from DivCHED and administrative support from Executive Assistant Heather Johnson. This program will continue to provide member benefits and bring new faces and ideas to our conferences, programming, and committees. I look forward to working with DivCHED colleagues to launch the next ‘new tradition’ to widen the Division’s influence and hope that I am given the opportunity to continue to serve as your Councilor/Alternate Councilor.
**Alex Grushow: Treasurer**

I received my B.A. in Chemistry from Franklin & Marshall College and a Ph.D. in Physical Chemistry from the University of Minnesota. After doing postdoctoral research at the University of Nevada-Reno, I began teaching at Rider University in 1996. I am currently a full Professor of Chemistry and Chair of the Department of Chemistry, Biochemistry and Physics. Since my days as an undergraduate I have been fascinated by intermolecular forces and have published papers on molecules held together by hydrogen bonding, van der Waals forces, dative bonding and ion-molecule interactions.

In 2002-2003, I worked as a Program Director for the National Science Foundation in the Division of Undergraduate Education. Since then, I have worked on a number of large group projects including the development of context-rich materials in physical chemistry (PCOL), computational documents and templates for physical chemistry students and guided-inquiry activities in general and physical chemistry (POGIL). I have also worked in chemistry examination development for both ETS and the ACS Examinations Institute. In 2008, I was named Chair of the Physical Chemistry Committee of the Examinations Institute, and in 2012 I was named to the Board of Trustees of the Institute.

My experience allows me to bring an important skill set to the job of Treasurer. Having worked at the NSF and as a department chair, I have the experience required to work with the multiple committees of the Division and monitor and help direct the management of the financial activities of the Division. I recognize the ongoing work required to transition the Division to a fully electronic accounting system. I am capable and ready to work with the Executive Committee to develop new mechanisms by which the finances of the Division are clearly accounted for in a transparent manner.

**Anna Wilson: Treasurer**

I have served as DivCHED treasurer for several years and it has been a great experience. Being the treasurer of a large division is a large job and a demanding position which requires attention to detail and the dedication of a fair amount of time each month. The responsibilities have increased immensely over the past years. I feel I have the experience to oversee the division's funds, keep the increasing number of accounts up to date and in order, and to keep detailed records for each account. As current treasurer I am on the taskforce that is working with a professional company, Virtual Office, to bring the division's financial situation up to recognized standards for a nonprofit corporation. This requires learning new procedures, a new system, and time. Since I have been in on the beginning of this process, I would like the opportunity to continue with it to its full implementation. I ask you to have confidence in me and allow me to continue to serve DivCHED as treasurer for another term.

I retired in 2007 as the coordinator of Teaching Laboratories for the Department of Biochemistry at Purdue University in West Lafayette, Indiana where I had been since 1975. I earned a B.S. in Chemistry and M.S. in Chemistry Education from Purdue. My past work experience includes teaching Chemistry, Physics and General Science at a county high school and four years in the Purdue University Freshman Chemistry Preparation Laboratory.

I have been a member of ACS and DivCHED since 1975 and served on several committees. From 1984 to 1992 I was a member of and later chairman of the Committee on Chemistry for Health Professionals. I served on the Program Committee from 1987 until 1993 as a member then as chairman for 4 years and was a meeting program chair for two National ACS meetings. I was the program chair for the Waterloo BCCE in 1998 and helped with the two Purdue Biennials.
William R. Robinson, Outstanding Service to the Division Award 2014

Bill’s research encompassed and impacted a wide range of areas in chemical education research. He has published papers on the effectiveness of peer-led team learning in organic chemistry, an inventory for general chemistry misconceptions, problem-solving, conceptual questions, and test-wiseness strategies used by students. He wrote a regular column in the Journal of Chemical Education (JCE), that synthesized research from a broad range of science education journals for use by chemists, faculty heavily involved in teaching chemistry, and chemical education researchers. For example, in 2004 he brought to the attention of the community Mayer’s cognitive theory of multimedia learning which has impacted research studies carried out in chemistry as well as the instructional design of PowerPoint presentations in general chemistry at Purdue.

Bill has served in many leadership roles in the ACS Division of Chemical Education. He was Chair of the division, where he simultaneously served on the Board of Publication for the JCE; Chair of the Chemical Education Research Committee; and General Chair of the 19th Biennial Conference on Chemical Education. As Chair of the Chemical Education Research Committee he helped to establish and organize a standing Chemical Education Research symposium at each ACS meeting enhancing the visibility of the Chemical Education Research community.

It was also during Bill’s tenure on the Chemical Education Research committee that discussions began for a regular chemical education research section in the Journal of Chemical Education. In 1997 Bill and Diane Bunce published a paper in JCE announcing the new Chemical Education Research feature bringing and idea to fruition that had broad support in the chemical education research community. After 17 years JCE continues to provide reliable and valid research reports addressing how students learn, factors affecting learning, and methods for evaluating learning. The standards for the feature—that the research must be theory based, the questions need to be relevant to chemists and chemical educators, the research design must be sound, and the results generalizable—set the standards for chemical education research and continues to shape the field today.

For the larger chemistry community, Bill’s role as General Chair for the 19th (2006) BCCE was particularly notable. The site for the 19th BCCE was changed in 2004 to Purdue. Usually organizing a conference with over 1200 participants calls for more than a 24-month time line. However, when the conference needed to be moved Bill stepped forward with Purdue University and directed a capable organizing team that pulled off the conference in less than 24 months. To the conference participants, this change in venue was transparent, but to those involved with organizing the conference, they realized without Bill’s strong leadership, direction, and attention to detail that the conference would have floundered.

2014 ACS Fellows who are also CHED members - Congratulations!

The American Chemical Society has named 99 members as ACS Fellows. Of these 99, 12 are Division of Chemical Education members. The new fellows will be feted at the society’s national meeting in San Francisco in August. We congratulate these new fellows!

- Paul T. Anastas – Yale University
- Mitchell R. M. Bruce – University of Maine
- Arlene A. Garrison – Oak Ridge Associated Universities
- Karen E. Grant – Columbia Basin College and Washington State University, Tri-Cities
- Larry K. Krannich - University of Alabama, Birmingham (Emeritus)
- Nancy E. Levinger - Colorado State University
- Loretta Jones – University of Northern Colorado (Emerita)
- Ron Perkins – Greenwich High School (Retired)
- Arlene A. Russell - University of California, Los Angeles
- Laura E. Slocum – Heathwood Hall Episcopal School
- Linette M. Watkins - James Madison University
- Donald J. Wink – University of Illinois, Chicago

For the full list of 2014 ACS Fellows in the C&E news, visit [http://cen.acs.org/articles/92/i28/2014-ACS-Fellows.html](http://cen.acs.org/articles/92/i28/2014-ACS-Fellows.html)
DivCHED provides this service to members to grant financial support for travel to meetings. Up to 12 members will receive the award each year. The DivCHED Travel Award provides up to 80% of travel expenses for one meeting with a limit of $1,000 for the BCCE or Spring National ACS Meeting. To be considered for this award, you must be in at least your third year as a member of the Division of Chemical Education at the time of application.

From the 2012 Awardees....

“I interspersed amongst these symposia and talks, I attended several poster sessions, primarily in the Division of Chemical Education and met and exchanged ideas with colleagues from every different stage in my career.”

“Attending the DivCHED meeting was also very enlightening and I enjoyed meeting with officers of the Division.”

“I made connections with colleagues at this meeting that provided avenues for mentorship and collaborations. The meeting was incredibly useful for expanding contacts in chemical education and my chemical research projects with undergraduates.”

“I attended a Division of Chemical Education meeting where I met several people who are very involved in the division’s activities. From these knowledgeable souls, I was able to discover some of the other areas that I might be able to contribute to DivCHED remotely.”

“My goals were all met in that I was able to participate in discussions, attend talks and poster sessions, network with my colleagues and meet so many others.”

“It is also amazing to see the chain of events that occurred from attending a single meeting. I thank the Division for the travel award that allowed me to attend this meeting.”

Visit http://divched.org/content/division-chemical-education-travel-award-application for more information and to apply.
ACS Division of Chemical Education International Travel Award

The Division of Chemical Education funds a Travel Award each year in support of a division member who presents and fully participates in an international chemical education conference held outside the U.S. The awardee will have the responsibility to communicate information and insights gained at the conference to the membership through available CHED publications and by postings on the DivCHED Web site (http://www.divched.org).

At the New Orleans meeting, the Executive Committee adopted guidelines developed by the International Activities Committee (IAC); these are described below. Questions as well as completed applications can be sent electronically on or before **November 30, 2014**, to Carmen Gauthier, the current chair of CHED IAC. She can be reached at cgauthier@flsouthern.edu.

Eligibility: The applicant must be a member of the Division of Chemical Education and be a full-time college, university, or high school faculty member. Preference will be given to junior and/or under-represented faculty members who have not had the opportunity to attend an international meeting in chemical education.

Selection Process:
1. An announcement about the availability of this Award for the following year will be submitted for publication in the Fall CHED Newsletter, appropriate issues of JCE, and to C&EN News. The announcement will also be posted on the CHED website.
2. The application package is due November 30 each year. It should be sent to the Chair of CHED-IAC. The award, presently $2000.00, is made for the following year.
3. CHED-IAC members serving on the Awards sub-committee appointed by the CHED-IAC Chair will review the applications.
4. The selected applicant will be announced by January 15 each year. An alternate will be selected in case the original awardee is not able to attend.

Application Package (Electronic applications are preferred):
- There is no formal application form. However, the application package must include:
  - Description of the conference - provide the pertinent URL.
  - Description of proposed participation in the conference.
  - Statement of how attendance at the conference relates to professional responsibilities.
  - Plan for dissemination of information from the conference to CHED members, including submission of a report to the CHED IAC Chair within three months of attendance at the conference. The report should be suitable for publication in the CHED Newsletter and for posting on the CHED website.
  - Applicant’s Curriculum Vitae (no more than three pages).
  - One letter of endorsement from a supervisor (for example: department chair, dean, principal, headmaster).
  - An itemized estimate of expenses giving the amount of aid requested and sources of all supplemental funds.
The Dorothy and Moses Passer Education Fund, Deadline September, 2014

Applications Being Accepted for The Dorothy and Moses Passer Education Fund.

This Fund was established by a generous donation of Dorothy and Moses Passer. Moses (Mike) Passer was for many years the head of the ACS Education Division. The Fund grants for teachers at two- and four-year colleges or universities that do not have any advanced degree programs in the chemical sciences.

The awards support continuing education activities that must be directly related to the applicant's teaching and must take them away from their campus.

The applicant must be a full time faculty member at his or her institution. The applications are reviewed by a committee. There is no application form but the application must include a description of the proposed activity and how it relates to his/her teaching with dates, locations, titles and contacts; a brief description of the applicant's institution and department; a short curriculum vita; an itemized estimate of expenses, amount of aid requested and sources of all supplemental funds. No support will be given for general attendance at national, regional or local ACS meetings or for any sabbatical support.

Closing dates are three times each year: January 1, April 1, and September 1. All applications must be received electronically. For further information or inquiries contact Sue Nurrenbern, scnurrenbern@gmail.com. Mailing Address: 4266 Calle de Strellas, Las Cruces, NM 88012.

Resources for Excellence Workshops 2014

The 2014 schedule of Resources for Excellence workshops has been announced. These interactive workshops guide two-year college chemistry programs through the development of customized strategies to address specific concerns at their home institutions.

Developed in 2010, the Resources for Excellence workshops are managed jointly by the CHED Committee on Chemistry in the Two-Year College (COCTYC) and the ACS Office of Two-Year Colleges.

In the Resources for Excellence workshops, a series of group and breakout discussions are used to help participants develop strategies to address areas of program growth identified at the beginning of each workshop. Participants also identify portions of the ACS Guidelines for Chemistry in Two-Year College Programs and other resources that can support their strategies.

Participants in Resources for Excellence workshops

- Develop customized strategies and action plans to address specific challenges at individual two-year colleges
- Create a network of supportive two-year college colleagues
- Identify and implement resources to foster excellence in two-year college chemistry education

Workshops are planned for the following conferences and will be free for conference participants:

- 204th Conference of the Two-Year College Chemistry Consortium, Collin College - Central Park Campus (CPC) in McKinney, TX, March 14-15, 2014 (OVER)
- 205th 2YC3 Conference, University of Wisconsin-Fox Valley, Menasha, WI, May 16-17, 2014 (OVER)
- 206th Conference (BCCE), Grand Valley State University, Allendale, MI, August 2014
- 207th Conference, Florida State College at Jacksonville, Jacksonville, FL (Early Fall 2014)
- 208th Conference, San Jacinto College - Central Campus, Pasadena, TX, November 14-15, 2014

Requests to host Resources for Excellence workshops at other conferences or individual opportunities are welcome. The flexible format of the workshops is adaptable to a variety of venues and audiences. Please contact the ACS Office of Two-Year Colleges (2YColleges@acs.org; 1-800-227-5558, ext. 8281) or visit www.acs.org/2YColleges for more information.
The American Association of Chemistry Teachers (AACT) is Launching in September 2014

The American Association of Chemistry Teachers (AACT), a new organization sponsored by the American Chemical Society, is launching this September!

AACT will support K–12 teachers of chemistry by providing specialized resources, opportunities for networking and interaction, and a means of interfacing with the broader ACS community.

Membership is open to anyone with an interest in chemistry education. Members of AACT will receive customized curriculum resources, a peer-reviewed periodical, a subscription to ChemMatters magazine, and professional development opportunities including webinars, workshops, and mentoring.

To learn more or get involved in AACT, visit www.acs.org/aact.

ACS-CEI Award for Incorporation of Sustainability into Chemistry Education

The deadline for nominations for the ACS-CEI Award for Incorporation of Sustainability into Chemistry Education is August 29, 2014. As part of the American Chemical Society’s goal to “Advance the broader chemistry enterprise and its practitioners for the benefit of Earth and its people,” the Society’s Committee on Environmental Improvement seeks to recognize those individuals or groups who have made exemplary contributions to the incorporation of sustainability into chemical education. See announcement on the next page of this newsletter.
ACS-CEI Award for Incorporation of Sustainability into Chemistry Education

As part of the American Chemical Society’s goal to “Advance the broader chemistry enterprise and its practitioners for the benefit of Earth and its people”, the Society’s Committee on Environmental Improvement seeks to recognize those individuals or groups who have made exemplary contributions to the incorporation of sustainability (see note below) into chemical education.

A goal of the recognition program is to encourage dissemination of the important work of creatively incorporating sustainability into chemical education. Therefore, awardees will be expected to present invited talks on their work as part of a symposium on Chemistry Education and Sustainability at the 2015 Spring National Meeting to be held in Denver. It is anticipated that four to six different projects will be recognized, with each awardee receiving $750 towards travel costs of attending the Denver meeting.

Both third party and self-nominations are encouraged. Nominations should clearly demonstrate how the nominee or nominees have contributed to the effective incorporation of sustainability into chemical education. The target audience for the work can be one or more of the following: K-12 students, undergraduate students, graduate students, or the general public. Nominations will be evaluated on the broad criteria of innovation, intellectual merit, and potential for broader impact. Additional important considerations include the extent to which sustainability is an important component of the education work, the extent to which the work supports learning of chemistry, and the overall quality of the design of the nominated work.

All nominations must be submitted via email by Friday, August 29, 2014, to Ray Garant at r_garant@acs.org. Completed nominations must include the following information:

- Full contact information (mailing address, phone number, email address).
- A title and abstract of no more than 150 words.
- A statement of no more than 500 words regarding the learning objective(s) for the work nominated, the target audience, and how sustainability has been incorporated.
- No more than 10 pages of supporting material (lab handout, class activity handout, descriptive materials, etc.).

Individuals submitting nominations are also strongly encouraged to review the additional information that can be found online at http://www.acs.org/content/acs/en/about/governance/committees/cei.html.

Questions regarding the recognition program can be directed to Dr. Keith Peterman, coordinator of the program, at peterman@ycp.edu or 717-825-1716.

Note – The National Research Council, in the report Sustainability and the Chemical Industry: Grand Challenges and Research Needs, defined sustainability as “a path forward that allows humanity to meet current environmental and human health, economic, and societal needs without compromising the progress and success of future generations. Sustainable practices refer to products, processes, and systems that support this path.” Documents such as the Twelve Principles of Green Chemistry or the Green Engineering Principles build on a similar definition.
**Cheminformatics OLCC**

In collaboration with ACS CINF (Division of Chemical Information) the CHED Committee on Computers in Chemical Education (CCCE) is organizing an intercollegiate OnLine Chemistry Course (OLCC) in cheminformatics and chemical information sciences. This will be the 6th OLCC the CCCE has organized since 1996 and will be offered twice, in the Fall of 2015 and the Fall of 2016. OLCCs are actually hybrid courses involving collaborative teaching between expert online guest lecturers and local faculty facilitators (instructors of record – the class being part of their teaching assignment). Prior to offering the course, the faculty facilitators will have a chance to work with cheminformaticians and experts in chemical information sciences to develop customized instructional content, and then the experts will be available to interact directly with their students when the course is offered. We are looking for faculty facilitators who would like to offer this course at their home institutions. If you are interesting in this project we ask you to contact the chair of the CCCE, Dr. Robert E. Belford (rebelford@ualr.edu), or Dr. David J. Wild (djwild@indiana.edu), the director of the Indiana University Cheminformatics Program. Further information is available at our website, [http://olcc.ccce.divched.org/](http://olcc.ccce.divched.org/).

Briefly, our objectives are to:

- Use social web technologies to develop course content, where faculty facilitators interact with cheminformaticians to develop customized and repurposeable instructional material.
- Use social and semantic web technologies to disseminate course content where multiple schools can offer content customized to the needs of their students/institution. Cheminformaticians will function as online guest lecturers and directly interact with students. This will be an intercollegiate experience.
- Archive course content in a discoverable fashion that lends to repurposing.
- Create content focused on essential cheminformatic and information science skills that are missing in the traditional chemistry curriculum, and would be an asset to graduates in today’s evolving STEM workplace.

We believe this is an appropriate topic for an OLCC because recent advances in Information and Communication Technologies are changing how our society represents, preserves and communicates information, and these advances in turn are impacting chemical education and the practice of science. Through this course educators will have a chance to interact with experts in cheminformatics and chemical information sciences, while their students will be exposed to the latest cheminformatic techniques and technologies, and learn skill sets that will be an asset when they graduate.
Committee Reports

Committee on Computers in Chemical Education, Robert E. Belford [rebelford@ualr.edu], Chair

The Committee on Computers in Chemical Education is a standing committee of the Division of Chemical Education, which according to the bylaws “seeks to encourage, publicize and support the development, implementation and assessment of computing technologies in chemical education”. The CCCE runs an annual Fall online newsletter, and as a service to the general chemical education community hosts the online ConfChem conferences, both of which can be accessed through our web site, http://www.ccce.divched.org/.

The Spring 2014 ConfChem on the flipped classroom was organized by Jennifer Muzyka and Chris Lurker and run from May 9 to June 12, 2014. During the conference the papers received 13,000 hits and had in the order of 200 comments. The papers and comments have been archived on the conference site, http://confchem.ccce.divched.org/2014SpringConfChem. The Spring 2015 ConfChem will be on Interactive Visualizations for Chemistry Teaching and Learning and is organized by Emily Moore. Further information on this conference is available in the ConfChem section of this newsletter. Anyone interested in organizing a future ConfChem should contact Bob Belford, rebelford@ualr.edu.

The CCCE also completed an ACS Innovative Projects Grant to enable tagging of papers and to develop a folksonomic index of the ConfChem/Newsletter archives. We have also posted many of the old papers that were no longer available and currently have 435 papers posted online, dating from as far back as 1984.

In collaboration with ACS CINF the CCCE is organizing the first OLCC since 2004, and this will be on Cheminformatics. We plan to offer this intercollegiate course in the Fall of 2015 and 2016, and are looking for faculty who would be interested in offering this course at their home institutions. This material is now posted on the CCCE production server, http://olcc.ccce.divched.org/.

The CCCE will hold an open meeting at the Biennial Conference on Chemical Education and we welcome your participation. Please contact Bob Belford if you are interested in any of these projects, would like to organize a ConfChem, submit an article to our Fall 2014 Newsletter or join the committee.

Upcoming CCCE Sponsored Symposium:

2014 International Conference on Chemistry Education (ICCE), Toronto, Canada, July 13-18, 2014

Symposium

- Online Resources for Chemical Education
  
  Organizers: Robert E. Belford & John H. Penn, rebelford@ualr.edu, John.Penn@mail.wvu.edu
  
  Abstract: This symposium seeks presentations on resources that can be obtained over the Internet, and ways they can be utilized for the teaching and learning of chemistry. We are seeking presentations that address perspectives of development and implementation of web based technologies. Topics such as how the open access nature of the web, and how social networking and semantic web technologies are influencing chemical education are also encouraged. The objective of this symposium is to provide educators and developers opportunities to share resources and experiences. This symposium is sponsored by the ACS-CHED Committee on Computers in Chemical Education, http://www.ccce.divched.org/.

Workshops

- Using PhET Interactive Simulations to Support Chemistry Learning Workshop
  
  Organizers: Yuen-ying Carpenter, and Emily B. Moore, University of Colorado Boulder, contact Emily.Moore@Colorado.EDU for further information. Participants are encouraged to bring a laptop (preferred) or tablet to the workshop, if possible.
  
  Abstract: The PhET Interactive Simulations project at the University of Colorado Boulder develops free online interactive simulations designed to promote student engagement, exploration, and inquiry (http://phet.colorado.edu/). The existing suite of over 30 chemistry simulations supports students from middle school to undergraduate levels in developing conceptual models of macroscopic and microscopic phenomena through inquiry. In this workshop, participants will explore several PhET simulations. We will introduce the research-based design of PhET simulations, and strategies for effective use for teaching and
learning – highlighting specific teaching approaches that target common student difficulties and scaffold student understanding. Participants will then work in small groups to discuss how different uses of PhET simulations can address a variety of learning goals in the classroom, lecture, or laboratory. Additionally, we will provide guidance and feedback to participants for writing effective questions and activities around PhET simulation use that will allow them to integrate these unique tools into their learning environment.

• ChemCollective Virtual Laboratory Workshop
  Organizer: David Yaron, Michael Karabinos & Robert E. Belford Carnegie Mellon University, yaron@cmu.edu, mk7@andrew.cmu.edu, rebelford@ualr.edu
  Abstract: This “hands on” workshop will provide chemistry teachers an opportunity to gain experience with the ChemCollective Virtual Laboratory (http://www.chemcollective.org) and ways to use this free software in their classrooms and labs. This Java-based Virtual Laboratory allows students to design and carry out their own experiments. Participants will learn how to incorporate any of the nearly 100 existing experiments into their class as either homework or pre/post lab activities. Training with the authoring capabilities will also be provided so that interested participants can develop activities for their own needs. An overview of results from research on learning in the virtual lab will be provided to aid instructors in using the lab in ways that are most effective for learning. Other materials freely available in the ChemCollective, including scenario-based learning activities and online tutorials, will also be covered in the workshop.

• Navigating an Internet of Chemistry via ChemSpider and other Cheminformatics Services for Educators
  Organizer: Antony J. Williams & Robert E. Belford, WilliamsA@rsc.org, rebelford@ualr.edu
  Abstract: The internet has provided new global portals to chemical information and this hands-on workshop will introduce educators to the Royal Society of Chemistry’s numerous eScience projects including Chemspider, an online chemical information and curation service utilizing web 2.0 technologies and the Learn Chemistry website for educators and students. Participants will acquire accounts within ChemSpider, learn several compound search techniques to perform compound structure and substructure based searches, and search methods employing structural drawing packages. Participants will gain an understanding of the ChemSpider data curation services, how to upload and obtain spectral and other data over the internet, and how they can use these in their classrooms for teaching purposes. They will also learn how gaming can be wrapped around chemistry data for the purpose of teaching and data curation. Participants will also be introduced to an international intercollegiate OnLine Cheminformatics course that they can offer at their home institution in the Fall of 2015. This workshop is sponsored by the ACS DivCHED Committee on Computers in Chemical Education and further information can be obtained at http://www.ccce.divched.org/ICCE2014Workshops.


Symposium:

• Flipped Classroom
  Organizer: Chris Luker & Jennifer Muzyka, cluker@highlandschools.org, jennifer.muzyka@centre.edu
  Abstract: The flipped classroom is a new hybrid model of teaching that allows active engagement between students and faculty members during class time, usually through the use of technological tools to present lecture material to students before the concepts are discussed in class. Recently there has been significant media attention on the flipped classroom, which is an innovative pedagogical method used by educators ranging from elementary school through colleges and universities. There are many different technological tools used to implement this pedagogical method. In particular, some educators pre-record lectures of themselves presenting material, others use screen casts to convey information to students before attending class in order to facilitate more peer-to-peer learning, and some teachers use a flipped classroom approach that does not involve videos. Ultimately, the shift in learning is focused on changing the classroom from passive to active. The focus of our symposium will be about how teachers use the face-to-face class time gained by changing from a completely lecture based classroom. This symposium is sponsored by the CHED Committee on Computers in Chemical Education.
• Interactive technology in the classroom: Innovation, challenges, and best practices for student engagement and learning  
  Organizer: Julia Chamberlain & Ingrid Ulbrich, Julia.M.Chamberlain@Colorado.EDU  
  Abstract: With the growing number of available interactive educational technology resources, chemistry educators are confronted with both new challenges and innovative opportunities when integrating these technologies into classroom practice. This symposium invites presentations on innovative in-class uses of interactive technologies by students, as well as implementation challenges and best practices for effective use. Interactive technologies can include student open-response tools; animations, simulations, and other interactive visualization tools; virtual open inquiry spaces; and others. Presentations can focus on the use of interactive technologies to foster a more student centered classroom, enhance student engagement and learning, or provide formative assessment to students and instructors. Research on technology use, discussion of implementation challenges in high school and university settings, and best practices for technology-specific facilitation are welcomed. This symposium is sponsored by the ACS CHED Committee on Computers in Chemical Education, http://www.ccce.divched.org/. Submissions should include a description of the interactive technology being discussed and how it is used by students.

• Web-Based Resources for Chemical Education  
  Organizers: Robert E. Belford, John H. Penn & Jonathan H. Gutow, rebelford@ualr.edu, John.Penn@mail.wvu.edu, Gutow@uwosh.edu  
  Abstract: This symposium seeks presentations on resources that can be obtained over the Internet, and ways they can be utilized for the teaching and learning of chemistry. We are seeking presentations that address perspectives of development and implementation of web based technologies, and their applications to classroom, hybrid and online learning environments. Topics such as the application of mobile devices, and how social networking and semantic web technologies are influencing chemical education are also encouraged. The objective of this symposium is to provide educators and developers opportunities to share resources and experiences. This symposium is sponsored by the ACS CHED Committee on Computers in Chemical Education, http://www.ccce.divched.org/.

Workshop:

• PhET Interactive Simulations supporting materials: Develop inquiry-based learning activities  
  Organizer: Julia Chamberlain, julia.m.chamberlain@colorado.edu.  
  Abstract: The PhET Interactive Simulations project (http://phet.colorado.edu) has developed over 30 chemistry simulations (sims), which support student learning through scientist-like exploration and experimentation. Sims make the invisible visible, incorporate multiple representations, and emphasize connections between real life phenomena and the underlying science. PhET sims are designed to be flexible tools, and can be used for classroom demonstrations, clicker questions, guided inquiry activities, laboratory exercises, and homework. In each context, the supporting materials (eg. an activity sheet) can target specific process and content learning goals using the sims. In this workshop, participants will use guidelines and existing activities to develop supporting materials and facilitation plans to couple with sims in their teaching. This workshop is appropriate for those new to PhET, as well as seasoned sim users looking to design and receive feedback on new supporting materials. This symposium is sponsored by the ACS CHED Committee on Computers in Chemical Education, http://www.ccce.divched.org/.
Committee Reports

High School Committee, Jeff Hepburn [jhepburn@q.com], Chair

Much has happened this year with the High School Committee or in ACS in connection with the committee. Some of the topics that are of importance to our members include:

The major topic is the formation of the American Association of Chemistry Teachers (AACT). This group will support K-12 teachers of chemistry by providing a multitude of resources and opportunities for networking. The Association will be kicking off in September. This Newsletter contains a more detailed description elsewhere. You can also get more information by visiting www.acs.org/aact.

Our committee is still working to take a more active role in the programming for National High School Day. We are looking for chairs to serve a two meeting term. This person would organize and facilitate the National High School Days for two national ACS meetings. The large majority of the expenses to attend will be covered. Contact the chair of this committee if you are interested in more information.

We hope you are planning on attending a chemical conference this year. They always provide great networking, tremendous workshops, and a great way to revitalize your teaching.

The 2014 BCCE (Greener on the Grand) will be held at Grand Valley State University in Western Michigan, August 3 - 7 2014. The website www.bcce2014.org would provide an outstanding summer opportunity. The ACS is holding its national meeting in San Francisco from August 10-14, 2014. The High School Day is scheduled for Sunday, August 10. Keep in mind that ACS has reduced fees for Pre College instructors. Chem Ed2015 will be held next summer at Kennesaw State in Kennesaw, GA. Kennesaw is very close to Atlanta.

The High School Committee is always looking for suggestions so contact any of the members listed on the DivCHED website. Best wishes to all of you as you start your new school year.

International Activities Committee, Carmen Valdez Gauthier [cgauthier@flsouthern.edu], Chair

The committee continues its efforts to promote issues on global education by organizing or co-sponsoring programs both nationally and internationally. More recently, committee members have been actively engaged in applying for funding through the Division Activities Committee and the ACS-International Activities committee. Dr. Resa Kelly was successful in obtaining funds through an innovative project grant entitled “Uniting International Chemical Societies through a Traveling Symposium;” funds will be used to support a traveling symposium centered on education for sustainable development and technological innovations. Dr. Santiago Sandi-Urena was successful in obtaining funds to support the participation of three educators in the symposium of Chemical Education Research and Practices of the Americas at the Latin American Chemistry Congress (CLAQ) in Lima-Peru and to establish a Chemical Education Network of the Americas (CENA). Additionally, the committee has been working closely with the International Activities Office of ACS to choose eight students from the Americas to attend the CLAQ meeting in October, present posters at the education symposium and volunteer at the Festival de Quimica, which will take place October 14, 2014.

The CHED-IAC International Travel Award winners Nicole DePaul from the YES Prep Public Schools in Houston, Texas and Sarah J. Hansen a graduate student from Columbia University will be attending the ICCE meeting in Toronto. Dr. DePaul will present a paper on “Using Facebook as a communication and collaboration tool for general chemistry at the college/university level,” while Ms. Hansen will work on developing an international network with the aim to develop learning communities from kindergarten through college. The committee is organizing a symposium on “Chemistry Education: International and Multicultural Perspectives” at the ICCE 2014 in Toronto, Canada. Also, committee member Hannah Sevian is co-organizing a symposium on “The Role of Education in Responsible Research and Innovation” at the ICCE 2014 meeting.

CHED International Travel Award

This award is designed to support a DivCHED member who attends and fully participates in an international chemical education conference held outside the U.S. Preference is given to junior and/or under-represented faculty members who have not had the opportunity to attend an international meeting in chemical education. Information about the travel award and deadlines can be found at http://www.divched.org/content/
Committee Reports

international-travel-award. If you or someone you know meet the criteria, please encourage them to apply. The application deadline for the 2014 CHED Travel Award is November 30th 2014.

Upcoming events:

**ACS National Spring Meeting, San Francisco 2014**
Global Perspectives in Chemical Education: Research and Practice
This is a full day symposium that will be held on Monday, August 11, 2014 at the Moscone Center in Room 121. Speakers will discuss issues from teaching abroad, assessment, collaboration and building an international network. The symposium will conclude with a panel discussion.

**CLAQ 2014, Lima Peru, October 13-17, 2014**
International Symposium on Chemical Education Research and Practice
This will be a one-day symposium sponsored in collaboration with the ACS-IAC, FLAQ and the GiDEEQ (Research Group for the Development of Strategies for the Teaching of Chemistry at the Pontifical Catholic University of Peru). Speakers for the symposium are Melanie Copper and Maria Oliver-Hoyo from the US, Johanna Camacho from Chile and Carolina Lizarro from Colombia. The goals of the symposium are to bring together chemical educators and researchers in chemical education from the Americas and to create a Chemical Education Network of the Americas (CENA).

**ACS National Spring Meeting, Denver 2015 and 98th Canadian Chemistry Exhibition in Ottawa, Canada**
A traveling Symposium between the U.S. and Canada: Uniting International Chemical Societies to Share Work on Chemical Education for Sustainable Development and Innovative Technologies for Implementation
Resa Kelly and Peter Mahaffy from the Canadian Chemical Society will be co-organizing this symposium. You are invited to submit an abstract to the symposium. We will post information about this symposium on the CHED website.

**PacifiChem 2015, Hawaii, December 15-20, 2015**
Chemistry Education: International and Multicultural Perspectives. Santiago Sandi-Urena is the symposium organizer.
The CHED-IAC meeting will be held from 8:00–9:30 am on Sunday, August 10, 2014, in the Moscone Center, Room 202/204 South Building. The committee will discuss the Latin American Congress of Chemistry to be held in Peru in 2014, and IAC participation in future national and international meetings. If you are interested in international issues, please join us; we always welcome new ideas. I look forward to hearing from you!

Sincerely,

Carmen Valdez Gauthier

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**Regional Meetings Committee, Frank Creegan [fcreegan2@washcoll.edu ], Chair**

1. On Awarding AACT Membership to DivCHED Awardees for Excellence in High School Teaching:
The Regional Meetings Committee has recommended to the 2014 Region Boards and 2014 Regions Awards Committees that they consider awarding a one-year membership in the American Association of Chemistry Teachers (AACT) to the recipient of the Region Award for Excellence in High School Teaching as well as to the ranked finalists for these Awards. The hope of RMC is that these memberships in ACCT will lead to not only association of highly successful teachers with ACS but also to their involvement with DivCHED. We are happy to report that the Middle Atlantic Region Board and the Northwest Region Board have accepted the recommendation and have presented memberships in AACT at their recent Spring-Summer meetings.
2. Regional Meetings in 2014-2015:

Five Regional Meetings have been planned for 2014 (see Table 1). A DivCHED Representative, who serves as a member of the Meeting Awards Committee, presenter of the DivCHED poster, and a resource in planning and executing the Chemical Education programming has been chosen for each meeting.

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Dates</th>
<th>Location</th>
<th>DivCHED Rep</th>
</tr>
</thead>
<tbody>
<tr>
<td>69th NORM</td>
<td>June 22-25 (Sun-Wed)</td>
<td>University of Montana, Missoula, MT</td>
<td>Jerry Sarquis</td>
</tr>
<tr>
<td>66th SERMACS</td>
<td>Oct. 16-19 (Thu-Sun)</td>
<td>Sheraton Music City, Nashville, TN</td>
<td>Laura Slocum</td>
</tr>
<tr>
<td>45th CERM</td>
<td>Oct. 29-Nov. 1 (Wed-Sat)</td>
<td>Double Tree by Hilton, Pittsburgh, PA</td>
<td>Doris Zimmerman</td>
</tr>
<tr>
<td>49th MWRM</td>
<td>Nov. 12-15 (Wed-Sat)</td>
<td>University of Missouri, Columbia, MO</td>
<td>Paul Rillema</td>
</tr>
<tr>
<td>70th SWRM</td>
<td>Nov. 19-22 (Wed-Sat)</td>
<td>Renaissance Worthington Hotel, Fort Worth, TX</td>
<td>Cheryl B. Frech</td>
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*GLRM, MARM, NERM, RRM, and WRM are not scheduled for 2014.

Eight Regional Meetings have been planned for 2015 (see Table 2), with two events consisting of Joint Meetings of geographically adjacent regions. For most of the 2015 meetings a DivCHED Representative has not been chosen. Traditionally the Representative is a member of RMC or a DivCHED member with experience in planning and/or executing Chemical Education Program at Regional Meetings. For a number of reasons, including the mandatory rotation off of RMC of four members, the Committee is seeking volunteers to serve as Representatives.

<table>
<thead>
<tr>
<th>Meeting</th>
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<th>Location</th>
<th>DivCHED Rep</th>
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<tbody>
<tr>
<td>46th CERM/41st GLRM</td>
<td>May 27-30 (Wed-Sat)</td>
<td>Grand Rapids, MI</td>
<td>Open</td>
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<tr>
<td>40th NERM</td>
<td>June 10-13 (Wed-Sat)</td>
<td>Ithaca, NY</td>
<td>Open</td>
</tr>
<tr>
<td>70th NORM</td>
<td>June 22-25 (Mon-Thu)</td>
<td>Pocatello, ID</td>
<td>Open</td>
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<tr>
<td>50th MWRM</td>
<td>Oct. 14-17 (Wed-Sat)</td>
<td>St. Joseph, MO</td>
<td>Open</td>
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<tr>
<td>67th SERMACS/71st SWRM</td>
<td>Nov. 4-7 (Wed-Sat)</td>
<td>Memphis, TN</td>
<td>Frank J. Creegan</td>
</tr>
<tr>
<td>45th WRM</td>
<td>Nov. 6-8 (Fri-Sun)</td>
<td>San Marcos, CA</td>
<td>Open</td>
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*RMRM and MARM are not scheduled for 2015.

3. Upcoming Openings on the Regional Meetings Committee:

As illustrated in Table 3, the 3-year terms for six of the nine members of RMC expire at the end of 2014. More significant perhaps is that four members will rotate off of the Committee after having served the mandated-maximum of three terms (nine years).
4. One criterion for Committee membership is Region Affiliation. The Committee is working to recruit new Committee members from the Southeast, Rocky Mountain, Midwest, Great Lakes, and Southwest regions and will happily welcome volunteers.

<table>
<thead>
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<th>Table 3. RMC Membership</th>
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<tr>
<td>Member</td>
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<tr>
<td>Frank J. Creegan, Chair</td>
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<td>Seth Anthony</td>
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<td>Cheryl Frech</td>
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<td>Allene Johnson</td>
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<td>Paul Rillema</td>
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<td>Jerry Sarquis</td>
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<td>Frank Torre</td>
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<td>Steve Wood</td>
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<td>Doris Zimmerman</td>
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</tbody>
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*Required Rotation off of Committee; **Eligible for second 3-year term

5. On Using Regional Meetings to Promote DivCHED:

The Division Poster: Throughout 2014, as was done in 2013, RMC continued to work with the New Member Committee (NMC) to introduce and promote the work of the Division, and the advantages of membership within, through presentation by DivCHED Representatives of the Division Poster at Regional Meetings. DivCHED Executive Assistant Heather Johnson, with the help of the chairs of RMC and NMC updated the poster. Each DivCHED Representative submitted a poster abstract, presented the poster as part of the Chemical Education programming at the Regional Meeting, and distributed Postcards that contain a synopsis of the poster and FAQ about the Division.

A Division PowerPoint Presentation: At the request of Paul Rillema, Heather Johnson prepared a PowerPoint Presentation about the Division that Paul presented at the 49th MWRM in November 2014. Our hope is that other Representatives to future Regional Meetings may wish to do likewise. An option to post the PowerPoint slides on the Division website is under consideration.

6. 2014 Awardees for Excellence in High School Teaching, Volume 1:
The Division of Chemical Education provides financial support to each Region through an unrestricted grant of $500.00 to support development of Chemical Education programming at each Regional Meeting and a grant of $1,000.00 to be awarded to a high school teacher as an ACS Division of Chemical Education Regional Award for Excellence in High School Teaching. Teaching awards were presented at the following Spring-Summer 2014 meetings:

ACS South Jersey Section Meeting, April 26, 2014, Glassboro, NJ
The winner of the 2014 Division of Chemical Education Middle Atlantic Region Award for Excellence in High School Teaching is Steven M. Borneman from Byram High School in Brewster, NY.

Steven M. Borneman received a B.S. in Chemistry, M.S. in Chemistry, and MAT in Chemistry from Binghamton University. Steven began his career in 2001. He currently teaches AP Chemistry, Regents Chemistry, Co-taught Regents Chemistry (for students with special learning needs), and the Chemistry Lab and Teaching Assistant Program at Byram Hills High School in Armonk New York. Throughout his career he has focused on inspiring students of all levels to learn and love chemistry. The Co-taught Regents Chemistry Program is one that Steven co-developed with a special education teacher to make Regents Chemistry more accessible to the students with special needs at Byram Hills High School, without sacrificing the integrity and challenging nature of the course. Steven also created a “Chemistry Lab and Teaching
Assistant” program, which allows selected students who have done very well in AP Chemistry to be a teaching assistant in a Regents chemistry class. This class was created to give high achieving students the opportunity to continue their studies in chemistry while also creating more support for struggling Regents Chemistry students. The act of teaching often stimulates and challenges students to achieve a deeper understanding of the chemistry concepts that are being taught, and results in students developing a better understanding of chemistry.

69th ACS Northwest Regional Meeting June 22-25, 2014, Missoula, MT

The winner of the 2014 Division of Chemical Education Glenn & Jane Crosby Northwest Region Award for Excellence in High School Chemistry Teaching is Jeff Charbonneau from Zillah High School in Zillah, WA.

Jeff Charbonneau is a chemistry, physics and engineering teacher at Zillah High School in Zillah, Washington. He’s been working in this position for his entire 13-year teaching career. Jeff has a Bachelor of Science in Biology and was a member of the William O. Douglas Honors College at Central Washington University, and holds a Masters of Education from Central Washington University. He is a National Board Certified teacher.

Jeff recognizes that many students see his course subjects as the “hard” science classes and welcomes the challenge to overturn that stigma. In addition to his role as a science instructor at ZHS, Jeff is a yearbook advisor, drama assistant director, science club advisor, and is the 9th grade class advisor. He also is an adjunct faculty member at three colleges and universities, allowing students who do take his classes to earn 24-college credits upon successful completion. Jeff admits his classes are “more rigorous” but says they are designed to be accessible. He’s created interactive learning experiences to help students develop confidence in their abilities. Jeff said, “I believe my greatest accomplishments are revealed each time a student realizes that he or she has an unlimited potential. The rest are simply vehicles to make it happen.”

Jeff was selected as 2013 National Teacher of the Year and was presented his award by President Barack Obama in the White House Rose Garden on April 23, 2013. Images from that ceremony are posted below.
Committee Reports

**Younger Chemists’ Committee, Kim Linenberger [klinenb@iastate.edu], Chair**

Prepared by Kim Linenberger, July 10, 2014

The spring National ACS meeting in Dallas was quite productive for the YCES. We continued to foster networking as the DivCHED representatives at the Graduate Student and Postdoc Reception. Members of the YCES also discussed the possibilities of CER graduate programs with undergraduates at the Graduate School Recruiting Fair where 47 undergraduates signed up to receive more information about graduate programs in CER. We also mingled with those undergraduates presenting at the undergraduate poster session and handed out flyers about CER graduate programs. The *Chemistry Education Research: Graduate Student Research Forum* Symposium was held for the fifth year on Sunday, March 16. This symposium was organized and presided by Kelli Galloway and Jessica Reed, both graduate students and had 9 presentations and approximately 50 people in attendance. Finally, at the YCES committee meeting which was held following the Graduate Student Research Forum we appointed Stephanie Ryan to coordinate the BCCE committee events and discussed the committees long range plans.

Part of the plan was to increase our web presence by creating the @ACS_YCES twitter handle! Justin Carmel, graduate student Miami University, has taken the lead on this project and will be live tweeting from symposia targeted at the YCES community for those that cannot attend and also at our committee sponsored events at conferences. Be sure to follow us on Twitter. The YCES blog has been live for over a year and is still going strong! The most recent blog post is written by Thomas Bussey, University of California, San Diego regarding how the YCES community can become more involved in the broader CER community. Please visit [http://www.divched.org/blogs/YCES](http://www.divched.org/blogs/YCES) to check out the latest content and post comments and questions to the author. If you are interested in becoming a guest blogger or have an idea for a post please contact Jessica Reed (jjreed@iastate.edu)

Stephanie Ryan, with the help of other volunteers, has planned an amazing line up of networking and professional development events for the YCES community at the BCCE. If you have any questions related to the events at BCCE please contact Stephanie (stephanie.a.c.ryan@gmail.com)

- Jessica Reed and Kelli Galloway have organized a CV Speed Dating event sponsored by WebAssign on Sunday afternoon prior to the start of the BCCE where CER graduate students and postdocs will have the opportunity to have their CV evaluated by faculty who have either served on hiring committees in their departments or who have recently gone through the hiring process.

- To encourage networking we will be hosting the YCES Social on Tuesday night of BCCE where CER books donated by ACS will be awarded to those who complete a networking “Bingo” card.

- In order to encourage networking with those outside of the YCES community an additional networking event will be included as part of the Wednesday night social where members of the YCES community will be required to fill out a short questionnaire about 3 members of the CER community whom they meet at the event.

- A final raffle based on participation at all events will be conducted Wednesday night for a Livescribe Echo Smartpen that was donated by Livescribe, Inc.

- Finally, as part of our long range plan of welcoming new members of the YCES community into the greater CER community, ACS Exams Institute has sponsored buttons related to CER that will be handed out at each YCES sponsored event and ones for committee members to wear that says “Ask me about CER.”

- We will also be having our committee meeting at BCCE on Sunday from 12:00-1:00PM.

If you are a CER graduate student and are interested or know of a graduate student who would be interested in organizing and presiding over the *Chemistry Education Research: Graduate Student Research Forum* Symposium please contact any of the YCES committee members. Also, if you are a graduate student, post doctoral researcher or young faculty member in CER and would like to become involved with the YCES committee please contact me at (klinenbe@kennesaw.edu).
Reports & News

News from the Exams Institute, Thomas Holme [taholme@iastate.edu]

We’ve been emphasizing our traditional testing products lately in the DivCHED Newsletter, so it seems appropriate to return to the new products that are ready for users. In particular, our on-line testing system, called Metior, developed by the Center for Educational Software Development at UMass-Amherst, has been in pilot testing for several semesters and is ready to be used as a regular Exams Institute product. At the time this article is being written, we anticipate the processes for ordering exams will be in place by the time this Newsletter is out, or soon thereafter.

Some commonly asked questions about on-line testing that we can address include:

Will we stop selling tests printed on paper? There is no plan to do so at this time, and really for the foreseeable future either.

What are the requirements for using the on-line tests? It’s important to emphasize that the on-line testing system will still require exam security, so a secure and proctored room is needed. The activation codes for exams are connected to a specific range of IP addresses for the computers at the school where students will take the test, as part of the security precaution as well. Aside from the security, the major requirement is a computer with an appropriate browser. At present, four browsers are being supported – Chrome, Safari, Internet Explorer, Firefox.

How can I look at the items on the test? The majority of the exams currently available are derived from exams that have been released as paper exams. Therefore, the process to look at the content of the items remains the same as it has for years. Specifically, a “professional copy” is obtained using our customary order process with it’s associated security protocols.

The only exam, to date, that has been developed directly for computer administration is the new Laboratory Exam for General Chemistry. We’re working on the process by which potential users will be able to preview items for this exam and encourage interest in this exam to contact our Assistant Director for On-line Testing, Julie Adams, at examsinstitute@gmail.com

Will the exam norms differ for on-line testing? Ultimately yes. Because the on-line platform will allow the capture of each student performance, norms will be continuously updated for the on-line tests. Reports that are available to instructors will show their students performances relative to the test takers who have completed the test prior to them. To begin, the norming will be “seeded” with data from the original paperversions of the exam, and migrated to on-line only performances as soon as data set sizes allow it.

How will the ordering process for on-line tests differ from the paper tests? The biggest difference is that in order to manage the technology set-up required, orders for on-line testing must be initiated at least several weeks before the exam is to be administered. The initial obtaining of an order form from the Exams Institute will be similar (for security reasons, order form requests always include an interaction with staff from the Exams Institute.) On-line exams are priced on a per-instance bases. In other words, unlike paper exams, the cost is associated with each student who takes an exam. (The cost is set at roughly 25% the cost of the concomitant paper exam.) Thus, when an exam is ordered there is a preliminary invoice generated that can be adjusted to reflect the actual number of students who take the test. This is followed up with a formal invoice after the usage is confirmed.

What steps are taken to set-up for the use of on-line testing aside from the ordering process itself? The school ordering the exam designates an individual to lead their process – a lead examiner, if you will. This person is authorized to set-up additional personnel at the school to serve as proctors for the exam (and extensive proctoring tools are available to manage the exam administration itself.) The actual timing of the exam is also established at this point. Activation codes are designed to be used within specific time windows.

In addition to designating the proctors, the lead examiner provides answers about technology such as the range of IP addresses that the computers being used for testing will have. This step enhances the security of the exam, because if a student somehow obtains an extra copy of an activation code and tries to use a computer from another place, the code would not work.

An additional component of the security system handled by the lead examiner is a security check. Importantly, this process serves as a test of the system as well, as the instructor accesses Metior from an IP-allowed computer during the security check. Thus, when the active exam administration occurs, the system will have already worked – providing confidence in the set up parameters.

We anticipate constant improvements of the on-line testing system as we move forward. Those who have used the exams during the development process have found them to be very reliable. If you have questions about this system or about any of the things we are working on at the Exams Institute, don’t hesitate to contact me at taholme@
## General Chemistry

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Items</th>
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<tr>
<td>GC01</td>
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### General Chemistry (First Term)

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<td>GC12B</td>
<td>General Chemistry–2012 (brief)</td>
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### General Chemistry (Second Term)

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### General Chemistry – Paired Questions

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### General Chemistry (ACS Texts)

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<td>ACS Chemistry (1st-Term)–2004</td>
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<td>GC09</td>
<td>ACS Chemistry in Context–2009</td>
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### General–Organic–Biochemistry

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### Analytical Chemistry

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### Organic Chemistry

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### Biochemistry

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### End of Undergraduate

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### Inorganic Chemistry

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### Physical Chemistry

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### Graduate Placement

(For graduate placement, use the corresponding end-of-year undergraduate test in analytical, biochemistry, inorganic, instrumental methods, organic, or physical chemistry.)

### Chemical Health and Safety

<table>
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<td>CS97</td>
<td>Chemical Health and Safety</td>
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### Polymer Chemistry

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### High School Chemistry

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<td>ACS ChemCom Curriculum–1991</td>
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<td>High School Chemistry–2013</td>
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<td>HS11</td>
<td>High School Chemistry–2011</td>
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<td>HS09</td>
<td>High School Chemistry–2009</td>
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<td>HS10A</td>
<td>Advanced High School Chemistry–2010</td>
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<tr>
<td>HS06A</td>
<td>Advanced High School Chemistry–2006</td>
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* Var means variable times are allowed depending on how many groups of items are used in a test.

Use Test Stock Code followed by /S to order scoring stencils; e.g. GC09/S specifies scoring stencils to accompany the GC09 exam.

---

### Study Guides


### Laboratory Assessment Materials

Lab assessment exam for General Chemistry is available on a case-by-case basis during the Spring 2014 semester.
News from the Board of Publication, Chris Bauer, Chair [chris.bauer@unh.edu]

First, I want to acknowledge the death in April of Joe Lagowski, the Editor of the *Journal of Chemical Education* for many years. Joe was succeeded by John Moore, whose tribute to Joe appears in the July 2014 issue (pp 947-950). Joe made his last appearance as an author in the Journal in the January 2014 issue (pp 17-23) with an article “From the Beginning: The Journal of Chemical Education and Secondary School Chemistry”, which was drawn from a talk at the Penn State BCCE two years ago. The family requests that any donations be directed to the J.J. Lagowski Undergraduate Scholarship in Chemistry at the University of Illinois, where Joe received his bachelor’s degree. [checks to University of Illinois, Department of Chemistry c/o Kristin Lang, 109 Noyes Laboratory, 600 S. Mathews Box D-1, Urbana, IL 61801].

As previewed in the last Newsletter update, the Board of Publication hosted a strategic planning meeting for the Journal in Chicago on July 27-30. The Board decided that we have reached calmer waters after successfully navigating several transitions (change in Editor-in-Chief, establishing co-publication with ACS, re-organizing CHED financial management), and that now was the time to look forward. Among the issues discussed were development of reviewers and associate editors, the content focus of the Journal in serving various constituencies, efficiency of manuscript handling and time-to-publication, development of production metrics, global reach and competitiveness, and planning for Editorial succession. A number of specific dated plans for action were developed. The meeting was organized by Jon Holmes, Ellen Yezierski, David Licata, and me. About 30 stakeholders participated, including Journal staff, ACS Publications staff, associate editors, editorial advisory board members, and Board of publication members. The participants were engaged, thoughtful, and productive, and I believe we established some direction and commitments for moving forward. You should see consequences of this strategic work play out over the next several years.

The Board has a new sixth member. We welcome Scott Lewis, who was appointed by the Executive Committee at the Dallas meeting. Scott is an assistant professor at the University of South Florida. Our makeup (based on Board seniority) is now: Chris Bauer, David Licata, Ellen Yezierski, Arlene Russell, Pratibha Varma-Nelson, and Scott Lewis.

Remember that Division members are welcome as guests at Board meetings, which generally run 8 to noon Saturday mornings before each ACS meeting. If the door is closed, we’re in private executive session. Otherwise, welcome!

Respectfully submitted,

Chris Bauer
Board of Publication Chair

**DivCHED Publications**

Division Members are involved in a wide variety of activities that lead to publications in the area of chemical education.

The *Journal of Chemical Education* is the main publication outlet for the division.

DivCHED is also responsible for the publication of the ACS Exams via the Examinations Institute.

Other journals in which Members publish scholarly articles include:

- The Chemical Educator
- Education in Chemistry
- Science Education
- Journal of Research in Science Teaching
- International Journal of Science Education
- Journal of College Science Teaching
- The Science Teacher
- ChemMatters
- Chemistry Education Research and Practice
Nomination Form for CHED Committees & Elected Positions

Below are listed the various committees or elected positions of the CHED Division. If you are interested in serving, or if you know of division members who are willing to become involved please fill out this form. For more information, please visit the Division of Chemical Education website at <www.acs.org> or contact the individuals listed below.

Committees
Biennial Conference Committee (BCC)
Chemistry Education Research Committee (CER)
Chemistry in the Two Year College (COCTYC)
Computers in Chemical Education (CCCE)
Finance (FC)
High School Chemistry (HSCC)
International Activities (CIA)
Long-Range Planning (LRPC)
New Member
Passer Portfolio
Personnel & Nominations (CPN)
Program (PC)
Recognition
Regional Meetings
Web Committee

Elected Positions (3 year terms)
Chair-Elect (Chair, Immediate Past Chair)
Secretary/Councilor
Treasurer
Member-at-Large (3 positions)
Alternate Councilor (4 positions)

Boards
Board of Publications (J. Chem. Ed.)
Board of Trustees (Exams Institute)

Name______________________________________________________________________________________

Institution __________________________________________________________________________________

E-Mail _______________________________________________________________________________________

Committee or Position __________________________________________________________________________

Name______________________________________________________________________________________

Institution __________________________________________________________________________________

E-Mail _______________________________________________________________________________________

Committee or Position __________________________________________________________________________

Jennifer Lewis
2015 Chair, Personnel & Nominations
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Tampa, FL 33620
Tel: 813-974-1286; Fax: 813-974-3203
Jennifer@usf.edu

Donald J. Wink
2014 Chair, Division of Chemical Education
University of Illinois at Chicago
Department of Chemistry
845 West Taylor Street
Chicago, IL 60607
Tel: 312-413-7383; Fax: 312-996-0431
dwink@uiuc.edu
**Division of Chemical Education Teaching Excellence Endowment**

Why are you a chemist? Many of us would agree with Eli Pearce, Past President of the American Chemical Society (ACS), when he said “my excellent high school teacher was definitely responsible for my choosing chemistry as a career.” And now you can join the effort to ensure that the great teachers who launch so many scientific careers are recognized and rewarded by their professional society!

The ACS Division of Chemical Education has stepped forward to establish an endowment that will support awards for high school science teachers in every Region of the ACS. By establishing an effort to solicit funds for the Division of Chemical Education Teaching Excellence Endowment, the Division is making a firm financial commitment to high school science teaching, ACS Regions, and the profession of chemistry. But the project will not be successful without your help.

Our goal is not just a financial one; we are anxious to assemble a lengthy list of donors containing names, of both individuals and collective entities, that will demonstrate to the secondary education community that there is a large number of science professionals who appreciate the value of good science teaching in the Nation’s high schools and who are willing to reward it.

Join other individuals and organizations that have already contributed to the. Most of all join what will be thousands of people who know, without that special teacher, their future would look very different.
Division of Chemical Education Teaching Excellence Endowment!

I want to help ensure that our great teachers are recognized and rewarded!

I am donating $________________ to the Endowment.

Select category:

| Lead up to $99 | Nickel $500-999 | Gold $5000-9999 |
| Tin $100-249 | Copper $1000-2499 | Platinum $10000 or more |
| Iron $250-499 | Silver $2500-4999 |

NAME(S) to appear on donor's list: ________________________________________________________
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(city)     (state)   (zip)

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___ My gift is given in honor of ____________________________________________________________

___ My gift is given in memory of __________________________________________________________

Select method of payment:

___ Check:
Payable to: The American Chemical Society Division of Chemical Education Teaching Excellence Endowment

___ Credit card (select one):
   ___ Visa  ___ MasterCard  ___ American Express

   Card number ____________________________________________________ Expiration date __________
   Cardholder name ____________________________________________________
   Signature__________________________________________________________

___ Stock transfer (call 800-227-5558 ext. 8092 for instructions)

Mail to: The Department of Meetings and Expositions Services/CHED HS Fund
American Chemical Society
1155 16th Street NW
Washington, DC  20036

Thank you for your contribution. All gifts of $250 or more will be acknowledged in writing. Acknowledgment will be sent to others upon request.
Membership Form

Introduce a friend, colleague, or student to the Division of Chemical Education!

I wish to join DivCHED: _____ as a Member, $20/year (for ACS members only)
_____ as an Affiliate, $20/year (for non-ACS members).
Affiliates have all membership privileges except voting for
CHED Councilors and holding elective office.

New members will receive information about CHED in general and about its major activities such as the
Exams Institute, the Journal of Chemical Education/JCE Software/JCE Online, and 2YC3.

General Information
Your Name: _____________________________________________
Home Address: ❑ Send mailings here       Work Address: ❑ Send mailings here
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
email: _____________________________  email: _____________________________
❑ Send me an ACS Membership Application Form—this form is also available online:
https://center.acs.org/applications/acsmembership/join.cfm

Did anyone encourage you to become a DivCHED member? ❑ Yes  ❑ No
If yes, who? _____________________________________________

Payment Information
Payment ($20) must be made in U.S. funds on a U.S. bank—by draft or credit card. Purchase orders not
accepted. There is a $30 charge for all returned checks.

___ Check or money order enclosed, payable to Division of Chemical Education, Inc.
___ MasterCard  ___ VISA  ___ American Express  ___ Discover

  ______  ______  ______  ______  ______  ______  ______  ______  ______  ______
Credit Card Number
Expiration Date  Month: ______  Year: ______
Signature of Card Holder: _____________________________

Return This Form
Anna Wilson
Treasurer, ACS Division of Chemical Education  765/474-6553
2225 S. Earl Avenue  wilson@purdue.edu
Lafayette, IN 47905
Note: The Executive Committee (ExCom) has 16 members; all are elected except the Editor, *Journal of Chemical Education*, the Director, Examinations Institute and the Program Chair. Only these 16 members have a vote on issues before or actions pending before the Executive Committee in its semiannual meetings.
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johnsoh2@MaimiOH.edu

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muzzicinzia@deanza.edu

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Irv Levy
(Address Page )

Recognition Committee (RC)
Anna M. Wilson
(Address Page )

Regional Meeting Committee (REGMET)
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Chestertown, MD 21620-1649
fcreegan2@washcoll.edu

Web Committee (WEB)
Jon Holmes (Chair, 2007-present)
Journal of Chemical Education
209 North Books
Madison, WI 53715-1116
Tel. 608-262-7917
jlholmes@chem.wisc.edu

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1000 Chastain Rd. MD 1203
Kennesaw, GA 30144
Tel. 770-423-6278
klinenbe@kennesaw.edu
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