

# **Chemistry Outlook**

An Activity of
The Committee on Chemistry in the Two-Year Colleges
Division of Chemical Education
American Chemical Society



Ed Kremer, 2005 Chair

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# otes I

### otes From The Chair

Ed Kremer Kansas City Kansas Community College Kansas City, KS 66112

Fall classes are here but the heat outside and in the classroom says that we're still in the transition from summer. Students pour into the classroom discussing their summer breaks, their jobs, their latest date, or anything but what's important—chemistry. The first three weeks will be spent pulling them into focus and getting them set to learn.

This is our perception of the start of the class, or maybe of the whole semester. Wouldn't it be great if we could get past all that, meet on some common ground, and agree to look at chemistry from the student and the teachers focus. That's what we're paid to do in some shape or form. Remember, you can cover all the material in the ten pound chemistry text book; but the real question is did they learn any of the material you covered? That's for you to decide.

If you struggle with what I just said, then attending the 172<sup>nd</sup> Conference at Harper College can help you find some of the answers. Renovating Your Chemistry Program (from the ground up) should get you thinking about the changes needed to make it happen. It may also show you that you are doing a great job and let you have a platform to tell others how you do things. If you have something that works great bring a copy of it to the meeting. If it's in electronic format e-mail it to me so that we can link it to the webpage.

The whole program for the 172<sup>nd</sup> conference looks great. Developing ways to start or revitalize research at your institution is a major theme; as is the use of technology in the classroom, from modeling programs to online teaching. As you go into the fall term think about what you teach and what students learn. Could you help their learning by putting a research component or technology piece into the course curriculum? How do you know that these components helped? How can you defend your curriculum to the administration, when they argue to cut the lab program in view of safety concerns? How do you counter these questions? I don't know completely. However, the presenters at the conference can share the ideas that work for them.

As I stated in the past Outlook, assessment is the buzz word that never seems to disappear. All of us need to think about how we approach this topic in

continued on page 2



### onference Calendar

### 2005 - 2006 Academic Year

### 172<sup>nd</sup> Conference (Midwestern)

Nov. 18 and 19, 2005, William Rainey Harper College, Palatine. IL

http://www.harpercollege.edu then select "Chemistry Conference."

Contact: Julie Ellefson-Kuehn

Phone: (847) 925-6694

Email: jellefso@harpercollege.edu

### 173<sup>rd</sup> Conference (Southern)

March 24 and 25, 2006, Georgia Perimeter College, northeast of Atlanta, Georgia

### 174<sup>th</sup> Conference (Eastern) 19th BCCE,

July 30-August 3, 2006, Purdue University Campus, West Lafayette, Indiana, http://www.chem.purdue.edu/bcce/

Contact: Jay Bardole, 2YC<sub>3</sub> Chair

Email: jbardole@indiana.vinu.edu

Remember to check the web for information on future meetings! http://2yc3.org

It is still not too late to become part of the Committee on Chemistry in the Two-Year College, COCTYC.

For more information please go to our website, http://2yc3.org.

We look forward to seeing you at our next meetings!

The COCTYC

our curriculum. To help you with this, I suggest you attend Jodi Weseman's workshop on the Guidelines for Chemistry Programs at Two Year Colleges. In a conference call today, several members of a task force to revise these guidelines discussed how to make the guidelines more useful, relevant, and meaningful to two and four year chemistry programs. That is where you come into play. We need your input on this project. A survey will be sent out shortly to your school, please take the time to respond. A link to the survey will also be made available on the website <a href="https://www.2yc3.org">www.2yc3.org</a>. Any information you can provide for the guidelines will be helpful.

My time as chair draws to a close at the end of December. I want to thank the members of the executive committee for their help in making this year a success. I would especially like to thank the Lance Lund, Patty Pieper, and Kelly Befus; all from the chemistry department at Anoka-Ramsey community college. Their willingness to take on the website, the membership chair, and treasurer positions was timely and is greatly appreciated. A great thank you goes out to Carol Handy for her work in editing and getting out the newsletter. A big thank you to the program chairs for this years conferences. Their work to host great conferences makes the organization worthwhile. Finally, I extend my thanks to the administration and board of trustees at KCKCC. Their support has allowed me the opportunity to be a part of this organization.

I encourage you to attend a meeting and bring a colleague. You'll find much to celebrate, as I have. If you can't attend the fall meetings remember there is a meeting in March at Georgia Perimeter College and the BCCE will be held in July at Purdue University.

### The 19th BCCE at Purdue

The 19<sup>th</sup> Biennial Conference on Chemical Education will be on the Purdue University campus July 30-August 3, 2006. The theme of the conference will be The Bridge Between Teaching and Learning. 2YC<sub>3</sub> has traditionally been a part of the planning process and we are invited to organize a symposium directed to issues that are of particular interest to chemistry teachers in the community colleges. We could focus a symposium on specific topics such as "Problems and Solutions of a one Person Department" and/or "Transfer and Articulation." We could also have a general session where any topic relating to teaching and learning chemistry would be acceptable.

If you have an idea for a symposium or would like to present a paper related to one of the suggested symposia, or have a presentation that you would like to make, please contact me as soon as possible with your ideas and suggestion.

Jay Bardole Vincennes University Vincennes, IN 47591

Purdue has great facilities and I am sure that the program will be outstanding. You will undoubtedly hear more good ideas than you can implement.

#### 2005 COCTYC AND SUPPORT STAFF

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2YC, World Wide Web Page: http://2yc3.org, Lance Lund

(Lance.Lund@anokaramsey.edu) WebMaster

### 2YC<sub>3</sub> Membership Form

Please consider supporting the 2YC<sub>3</sub> by becoming a member or renewing your membership. Annual dues are only \$15.

**Special Offer:** Annual dues are \$15 for the 2YC<sub>3</sub> and \$20 for the American Chemical Society Division of Chemical Education (DivCHED). If you are not already a member of DivCHED, you may join both organizations today for a total of \$30, a savings of \$5.

| I wish to:   | Become a member of 2YC <sub>3</sub> Renew my 2YC <sub>3</sub> membership Join DivCHED as a member (ACS members only) and 2YC <sub>3</sub> Join DivCHED as an affiliate* (non ACS members) and 2YC <sub>3</sub> *affiliates have all membership privileges except voting and holding elective office |  |          |             |                                    |  |  |  |
|--------------|---|--|----------|-------------|------------------------------------|--|--|--|
| I am a:      |   | Two-Year College Teac<br>High School Teacher | her      |             | Four-Year College Teacher<br>Other |  |  |  |
| Your Name:   |   |  |          |             |                                    |  |  |  |
| Institution: |   |  |          |             |                                    |  |  |  |
| Address:     |   |  |          |             |                                    |  |  |  |
| Phone:       | Street  |  | _ Email: | City, State | 9-Digit Zip                        |  |  |  |
| Send ACS Men | nber Form?  | Yes  | _ No     |             |                                    |  |  |  |

Please send your check, payable to 2YC<sub>3</sub>, for \$15 (2YC<sub>3</sub> only) or \$30 (joint membership) to: Patty Pieper, Anoka-Ramsey Community College, 11200 Mississippi Blvd NW, Coon Rapids, MN 55433-3470

## 172<sup>nd</sup> 2YC<sub>3</sub> Conference

Renovating Your Chemistry Program
(from the ground up)
November 17-19, 2005
William Rainey Harper College
1200 W. Algonquin Road, Palatine, Illinois 60067



6:30-7:30

# onference Program

For the latest updates on the conference, please go to:

**COCTYC Business Meeting** 

### http://www.harpercollege.edu then select "Chemistry Conference."

### Thursday, November 17

| 7:00-9:00      | Social Mixer  |
|----------------|---|
| Friday, Novemb | er 18   |
| 8:00-5:00      | Exhibits  |
| 8:00-9:00      | Registration and Continental Breakfast  |
| 9:00-9:15      | Welcome and Opening Remarks Dr. Robert Breuder, President, William Rainey Harper College                              |
| 9:15-10:15     | Keynote Address   |
| 10:15-10:45    | Refreshment Break and Exhibits – Exhibit Area   |
| Session I      | Presentations   |
| 10:45-11:15    | Developing a Safety Program and Chemical Hygiene Program Kelly Jones and Julie Ellefson, Harper College, Palatine, IL |
| 11:20-11:50    | Producing a Laboratory Safety Video   |
|                | C. Jayne Wilcox, Harper College, Palatine, IL   |
| Session II     | Roundtable Discussion   |
| 10:45-11:50    | On-line and Blended Teaching and Learning   |
| 11:55-1:30     | Lunch, Exhibits, and $2YC_3$ General Membership Meeting   |

### Session III Workshops

1:30-5:30 Introducing CHEMISTRY: The ACS General Chemistry Textbook

Jerry Bell, American Chemical Society, Washington, DC

| 1:30-4:30                      | Designing Interactive Games for Chemistry Deepa Godambe, Harper College, Palatine, IL   |
|--------------------------------|---|
| 1:30-3:00                      | Guidelines for Chemistry Programs in Two-Year Colleges: A Resource for Institutional Self-Study and Program Review Jodi L. Wesemann, Assistant Director for Higher Education, American Chemical Society, Washington DC  |
| Session IV<br>1:30-2:00        | Presentations The Chemical World: A Collaborative Course Development Between Community Colleges and a 4-Year University Dr. Dana Perry, Harold Washington College, Chicago, IL  |
| 2:05-2:35                      | Classroom Research on the Chemical World Course Roger House, Harper College, Palatine, IL   |
| 2:40-3:10                      | Elementary Classroom Visits Lance Lund, Anoka-Ramsey Community College, Coon Rapids, MN   |
| 3:10-3:25                      | Refreshment Break and Exhibits  |
| 3:30-4:00                      | Teaching with Technology When You're Technologically Challenged Kelly Befus, Anoka-Ramsey Community College, Cambridge Campus, MN   |
| 4:05-4:35                      | SENCER Dennis Lehman, Harold Washington College, Chicago, IL  |
| 4:40-5:25                      | The ACS College Chemistry Consultant Service and the Establishment of a Chemical Technology Program at Southwestern College Onofrio Gaglione, Community College of Southern Nevada, David Brown, Southwestern College, Chula Vista, CA, Kenneth Chapman, Cardinal Workforce Developers, LLC |
| 5:30-6:30                      | Social Mixer  |
| 6:30-9:00                      | Dinner Banquet and Address  Donald Wink, University of Illinois – Chicago, Chicago, IL  |
| <b>Saturday, No</b> 8:30-12:30 | ovember 19 Registration and Exhibits  |
| 8:30 -9:00                     | Continental Breakfast   |
| 9:00-9:15                      | Opening Remarks Sally Griffith, Dean, Technology, Math, and Science, Harper College   |
| <b>Session I</b> 9:15-12:00    | Workshops  Bomb Calorimetry Laboratory Experiment for Determining Food Calories  Barbara Weil, Harper College, Palatine, IL   |
| 9:15-12:00                     | Designing Interactive Games for Chemistry Deepa Godambe, Harper College, Palatine, IL   |
| <b>Session II</b> 9:15-10:15   | Workshop Introductory Chemistry: Teaching Techniques and Technology Tools Ian Graske, Sargent-Welch, Buffalo Grove, IL  |
| <b>Session III</b> 9:15-9:45   | Presentations Projects for a Revolving Research Group Dan Stanford, William Rainey Harper College, Palatine, IL   |
| 9:50-10:20                     | Involving Students in Research Activities at Southwestern College David Brown, Southwestern College, Chula Vista, CA  |

| 10:20-10:50             | Refreshment Break and Exhibits   |
|-------------------------|--|
| 10:50-11:20             | Undergraduate Research with an Outside Agency Tom Dowd, Harper College, Palatine, IL   |
| 11:25 – 11:55           | Presentation   |
| 12:00 – 1:00            | Lunch  |
| Session IV<br>1:00-3:30 | Workshop  Molecular Modeling and Computational Chemistry in an Organic Chemistry Course Using CAChe  Mike Oester, Professor Emeritus, Harper College, Palatine, IL |
|                         |  |
| Session V<br>1:00-1:30  | Presentations Presentation   |
|                         |  |
| 1:00-1:30               | Presentation   |
| 1:00-1:30<br>1:35-2:35  | Presentation  Roundtable Discussion: Undergraduate Research  |

Program Chair: Julie Ellefson, William Rainey Harper College, 1200 Algonquin Road, Palatine, IL 60067; e-mail:

jellefso@harpercollege.edu; Phone: 847-925-6694

Local Arrangements Chair: Barbara Weil, William Rainey Harper College, 1200 Algonquin Road, Palatine, IL 60067; e-mail:

bweil@harpercollege.edu

Exhibits Coordinators: Tom Dowd and Julie Ellefson, William Rainey Harper College, 1200 Algonquin Road, Palatine, IL 60067

#### LODGING

### **RADISSON HOTEL** (1.84 miles from the conference)

1725 E Algonquin Rd 100 room block, immediate booking Schaumburg, IL 60173 Rooms held until October 18th. For reservations call: (800) 333-3333 After October 18, reservations will \$79 for both King and Double bed rooms be accepted based on availability

An Airport Shuttle runs every hour.

Local shuttle to Harper and other area locations.

### **COUNTRY INN SUITES** (2.27 miles from the conference)

1401 N Roselle Rd 30 room block, immediate booking Schaumburg, IL 60195 Rooms are available until Oct 28th

For reservations call: (800) 456-4000 \$89, includes breakfast - all rooms are suites

Shuttle to Harper

No airport shuttle but taxi service via All Star Taxi is \$19. For taxi reservations call: 888-533-4240 or 847-621 1700

### **Directions to Harper College**

From the north: Take Highway 53 south to Algonquin Road exit. Go west on Algonquin Road to Harper College. The entrance to the College is on the north about one block east of Roselle Road.

From the south: Take Highway 53 north to Algonquin Road exit. Go west on Algonquin Road to Harper College. The entrance to the College is on the north about one block east of Roselle Road.

From the east: Go west on the Northwest Tollway (I-90) to the Roselle Road exit. Go north on Roselle Road to Harper College. Go east on Algonquin about one block and then turn left onto the campus.

From the west: Go east on the Northwest Tollway (I-90) to Highway 53. Go north on Highway 53 to the Algonquin Road exit. Go west on Algonquin Road to Harper College. The entrance to the College is on the north about one block east of Roselle Road.

From O'Hare International Airport: Go west on the Northwest Tollway (I-90) to the Roselle Road exit. Go north on Roselle Road to Algonquin Road. Go east on Algonquin about one block and then turn left onto the campus.

The Avante Center is the large building with the glass concourse facing Algonquin Road. After entering the campus via the Algonquin Road entrance, turn right on the perimeter road and park in lots 2, 2a, 3 or 4 for easiest access to the Avante Center. The registration table will be near the main entrance and exhibits will be located in the concourse.

### Have you been trying or considering an activity-based, student-centered approach to teaching your general chemistry course?

### If so, you are invited to participate in an ACS Chemistry textbook workshop

A 1.5-day workshop will be held on 29-30 October in Memphis, TN and is organized in conjunction with the the ACS Southeast/Southwest Regional Meeting.

A 4-hour workshop will be held on 18 November at William Rainey Harper College, Palatine, IL in conjunction with the 172<sup>nd</sup> 2YC<sub>3</sub> Conference.

The new textbook, *Chemistry* (a project of the American Chemical Society), is designed to support and reinforce an activity-based, student-centered approach to teaching your general chemistry or honors high school course. This workshop for college/university instructors and secondary school teachers of honors chemistry courses includes a brief presentation of the background and motivation for the project and the rationale for the structure of the textbook. However, because the approach requires more effort on the part of both students and instructors and what we are trying to accomplish may be unfamiliar, most of the workshop is devoted to hands-on participation in group activities and pointers from faculty who are using the text about how this approach is accomplished in actual classrooms. These activities also provide a way to include/explain content/concepts that may be treated somewhat differently in this text. Also included is an introduction to the Web Companion with its interactive animated exercises that illustrate, reinforce, and extend the content and concepts in the static text as well as an introduction to the Faculty Resource and Organizational Guide (FROG), an on-line resource with complete instructions for all activities and extensive solutions to the in-chapter activities and end-of-chapter problems; many instructors find the FROG essential as they first start to use this new approach.

Space in these workshops is limited. If you are interested in attending, or wish to receive more information about ACS Chemistry textbook workshops please send a message to Marta Gmurczyk at m gmurczyk@acs.org.

# $172^{nd}$ Two-Year College Chemistry Consortium (2YC3) Conference William Rainey Harper College Palatine, IL 60067 November 17-19, 2005

| Name  | Institution  |   |                                     |
|---|--|---|-------------------------------------|
| Institution Address   |  |   |                                     |
| City  | State  | Zip Code  |                                     |
| Phone Number(s)   |  |   |                                     |
| E-mail Address(es)  |  |   |                                     |
| I teach at a High School  | 2-Year College   | 4-Year College  |                                     |
| Conference Fees Registration (current 2YC <sub>3</sub> mem Registration (includes 2YC <sub>3</sub> men Friday evening banquet @ \$25.0 Friday lunch @ \$7.00 Saturday lunch @ \$7.00 * There is no conference fee for | mbership) @ \$35.00<br>00  | \$<br>\$<br>\$<br>\$<br>students                                    |                                     |
| Meals A continental breakfast will be pronference. A vegetarian option option atFriday lunch,  Workshops (enrollment limited I would like to attend the follow  | will be available for the barries. Friday banquet,S                          | anquet and the lunches. P<br>Saturday lunch (may incluerwise noted) | lease check here for the vegetariar |
| Introducing CHEMISTRY: T  |  |   | )-5:30                              |
| Designing Interactive Games   | s for Chemistry, Friday, 11/18   | , 1:30-4:30 (enrollment limit                                       | red to 15)                          |
| Guidelines for Chemistry Pro  | ograms in Two-Year Colleges.   | , Friday, 11/18, 1:30-3:00  |                                     |
| Bomb Calorimetry Laborato   | ry Experiment for Determinin   | ng Food Calories, Saturday, 1                                       | 1/19, 9:15-12:00                    |
| Designing Interactive Games   | for Chemistry, Saturday, 11/   | 19, 9:15-12:00 (enrollment l  | imited to 15)                       |
| Designing Interactive Games   | for Chemistry, Saturday, 11/   | 19, 9:15-12:00 (enrollment li                                       | imited to 15)                       |
| Quantum Tutors Workshop, S  | Saturday, 11/19, 9:15-10:15  |   |                                     |
| Molecular Modeling in Orga  | nic Chemistry Using CAChe,   | Sat, 11/19, 1:00-3:30 (enrol  | lment limited to 15)                |
| Please send your registration for<br>Julie Ellefson, 1<br>William Rainey<br>1200 W. Algond<br>Palatine, IL 600<br>Make Checks Payable To: Har   | 72 <sup>nd</sup> 2YC <sub>3</sub><br>Harper College, TMS<br>Juin Road<br>067 |   |                                     |

### **Summary and recommendations from** "Undergraduate Transitions: **Enhancing Student Success" are now** available

The session "Undergraduate Transitions: Enhancing Student Success," held at the 18th Biennial Conference of Chemical Education, highlighted opportunities and discussed various approaches for ensuring that students who attend more than one institution receive a quality education. The summary and recommendations from this session were published in the Journal of Chemical Education, Vol. 82, p 196-198, Feb 2005.

Recommendations from "Undergraduate Transitions: Enhancing Student Success" fell into three general categories:

- 1) increase the awareness of the various approaches that are being pursued and the need for involvement of chemistry faculty in these efforts;
- 2) improve communication among all parties involved - students, advisors, administrators, faculty at the transferring institution, and faculty at the receiving institution; and
- 3) develop partnerships for sustaining regular activities, promoting the benefits to all partners, and maintaining a focus on the students.

Links to presentations and related resources can be found by visiting chemistry.org/education/BCCEConference.html. The Society Committee on Education, the Committee on Minority Affairs, and the Committee on Technician Affairs sponsored the session. For more information, contact Jodi Wesemann at 202-872-4587 or j wesemann@acs.org.



### **College Chemistry Consultants**

### Service to Pilot Visits Focused on Student Transitions

Given the growing number of students attending two-year colleges and the importance of broadening participation in science and chemistry, it is essential for the chemistry community to facilitate undergraduate student transitions across institutions. As reported in "Undergraduate Transitions: Enhancing Student Success" (Journal of Chemical Education, Vol. 82, p 196-198, February 2005), this requires

- increasing the awareness of the various approaches that are being pursued and the need for involvement of chemistry faculty in these efforts;
- improving communication among all parties involved students, advisors, administrators, faculty at the transferring institution, and faculty at the receiving institution; and
- developing partnerships for sustaining regular interactions, promoting the benefits to all partners, and maintaining a focus on the students.

The College Chemistry Consultants Service (C S) can provide assistance in each of these areas. Institutions participating in the pilot program will be visited by teams consisting of a consultant from a two-year college and a consultant from a four-year institution. The schedules for visits, established in conjunction with the C S teams, should include representatives from both the transferring and receiving institutions.

If your program is interested in participating, please contact Steven Iwanowski at s iwanowski@acs.org or 1-800-227-5558 x 6124. A limited number of grants are available.

### ACS Award for Volunteer Service to the American Chemical Society.

Congratulations to Janan M. Hayes, a professor of chemistry at Merced College, a Two-Year College, for receiving the ACS Volunteer Service Award this year. Dr. Hayes has been a member of ACS since 1971 and a tireless volunteer ever since. To learn more about Dr. Hayes, please see the January 17, 2005, issue of C&E News.

If you hear of someone from a two-year college chemistry program who deserves special recognition, please let me know so that I can publish it in the Chemistry Outlook.



Once again we thank our industrial sponsors for their continuous support. Because of our industrial sponsors, we remain at the forefront of the latest in educational technology and pedagogy. We appreciate their support at our conferences and look forward to a continued relationship.

Mr. John Ryan Ace Glass 1430 N.W. Blvd. Vineland, NJ 08362

Mr. Jim Smith Benjamin-Cummings 1301 Sansome St. San Francisco, CA 94111

Mr. Bruce Wilson Carolina Biological Supply Co. 2700 York Road Burlington, NC 27215-3387

Ms. Barbara Glunn CRC Press LLC/Lewis Pub. 2000 N.W. Corporate Blvd. Boca Raton, FL 33431

Mr. Kevin McNulty Flinn Scientific Inc. 770 N. Raddant Rd. P.O. Box 219 Batavia, IL 60510

GOW-MAC Instrument Co. P.O. Box 25444 Lehigh Valley, PA 18002-5444 Mrs. Kathleen McKenna Hayden-McNeil Specialty Products 47461 Clipper Street Plymouth, MI 48170

Ms. Cindy Yates Thomson Learning P.O. Box 710037 Herndon, VA 20172-0037

Ms. Katherine Greig Houghton Mifflin 222 Berkeley Boston, MA 02116

Mr. Michael Ross Mettler-Toledo 1900 Polaris Parkway Columbus, OH 43240-2020

Dr. John Amend Microlab, Inc. P.O Box 7358 Bozeman, MT 59771-7358

Mr. Robert Vorhees Measurenet Technology 4242 Airport Rd. Cincinnati, OH 45226-1615 Mrs. Amy Frame Vernier Software & Tech. 13979 SW Millikan Way Beaverton, OR 97005-2886

Dr. Jodi Weseman ACS Educational and International Activities Division 1155 16th St. N.W. Washington, DC 20036

Ms. Angela Sica Prentice Hall Publishing 1 Lake St. Upper Saddle River, NJ 07458-9910

Dr. Gary Wulfsberg Middle Tennessee State University Department of Chemistry Murfreesboro, TN 37132

Ms Molly Trauton W. H. Freeman 41 Madison Ave. 35th floor New York, NY 10010-2202

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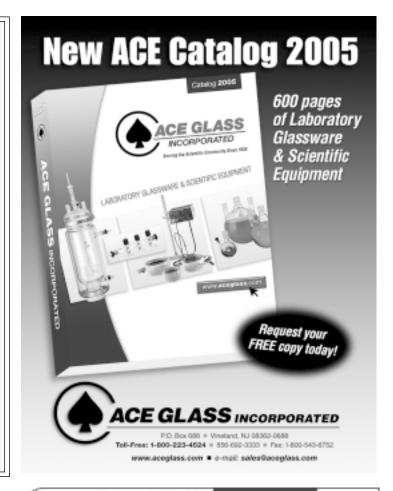
Web site: http://www.mtsu.edu/~chem

Contact: William H. Ilsley: wilsley@mtsu.edu (615)898-2078

or Martin V. Stewart: mstewart@mtsu.edu (615)898-2073

or Write: Department of Chemistry, Box 68,

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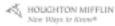
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