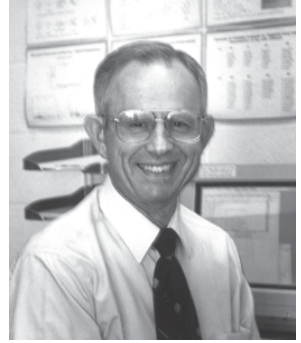

 Chairman's Column

Second-Choice Votes Ensure Majority Rule

Jesse Ventura 37%, Bill Clinton 43% and 49%, Alan Nixon 48%, Bernard Friedman 45%. These percentages represent ballots cast by U.S. citizens or ACS members in favor of a Minnesota governor (1998), U.S. president (1992 and 1996), and ACS president-elect (1971 and 1972), respectively. In other words, 63%, 57%, 51%, 52%, and 55%, respectively, of the people who voted did not vote for the candidates who were elected, yet each candidate *was* elected to the position he sought. The ACS has learned how to avoid this situation where a minority of voters elects the winning candidates. The United States would do well to follow this example.



Wendell Dilling, Chair
ACS Midland Section

According to a report in *C&EN* (September 17, 1973, p. 28) “the Council discussed long and hard the proposed changes in balloting procedures to assure majority election of the Society’s president-elect. The Society’s

In the early 1970s a significant debate occurred within the ACS between members who wanted the ACS to be only a scientific society and those who favored professionalism.

past two presidents-elect—Dr. Alan C. Nixon and Dr. Bernard S. Friedman—were both elected by less than a majority of those voting. And proposals to modify the balloting system have been before the Council for the past two years.” The procedures finally approved in 1973 (with slight modifications later) by the Council

and confirmed by the board of directors for the election of ACS presidents-elect and regional directors are as follows (Bylaw V, Sections 2d and 4f):

When there are two candidates, a single-choice ballot shall be used, and the candidate receiving the greater number of votes shall be declared elected.

When there are three candidates, a preferential ballot shall be used. The ballot shall afford the voter an opportunity to indicate a first and a second choice. If one candidate receives a majority of first choices, that candidate shall be declared elected. If no candidate receives such a majority, the candidate receiving the lowest number of first choices shall be eliminated and the second choice

preferences on those ballots so eliminated shall be added to the first choice totals of the other two candidates to establish a majority for one candidate who shall then be declared elected. Ballots of the eliminated candidate that have not indicated a second choice shall be void in the second count.

When there are four or more candidates, a single choice ballot shall be used. In the event that no candidate receives a majority of the votes cast, a run-off election by mail ballot shall be held between the two leading candidates.”

In the early 1970s a significant debate occurred within the ACS between members who wanted the ACS to be only a scientific society and those who favored professionalism. In his president’s message in *C&EN* (January 1, 1973, p. 1) Alan Nixon said, “I believe the Society should be more than a great scientific society. It should also be a professional society

Have second-choice votes had any effect on the outcome of ACS elections?

dedicated to promoting professional welfare of its members—adequate salaries, portable pensions, protection against arbitrary actions on the part of employers—whether through

unwarranted dismissals, unexplained lay-offs or premature retirements—and a greater opportunity to participate in the fruits of their labors.”

Both Alan Nixon and Bernard Friedman, whose views were similar to those of Nixon, were petition candidates when they ran for ACS president-elect. In the 1971 election, George S. Hammond and William A. Mosher were the candidates selected by the Council Committee on Nominations and Elections and the Council. Prior to the election, Arthur Adamson wrote a letter to the editor of *C&EN* (October 4, 1971, p 7) stating “... Dr. Nixon’s background and advocacies tend to place him in contrast to both of the Council nominees and the vote should therefore tend to split: Nixon vs. Hammond or Mosher. This is what happened last year, when the same maneuver was employed. It was nearly successful then; there was a three-way split and Nixon came close to being elected by a number of votes representing only about 10% of the membership.”

Similarly, following the 1972 election, John Jackson, in a letter to the editor of *C&EN* (January 29, 1973, p. 23) stated, “The past two ACS elections for president-elect have matched one candidate representing the new professionalism against two old-line candidates with views rather similar [to each other’s]. Whether one considers the predictable results good or bad, they do not appear to represent a fair contest.”

Have second-choice votes had any effect on the outcome of ACS elections? Second-choice votes were used in four president-elect elections

(1981, 1986, 1988, 1992), but adding second-choice votes to the first-choice votes for the top two candidates did not change any of the election results. In the 1985 three-way election, second-choice votes were not needed because the winning candidate received a majority of first-choice votes.

However, a run-off election did change the outcome of one president-elect contest. Four candidates were on the ballot in the 1983 president-elect election. The vote distribution was Clayton Callis 9467, Ellis Fields 9427, Attila Pavlath 7856, and E. E. McSweeney 3523. In the run-off election the order of finish of the top two candidates was reversed by a considerable margin: Fields 16252, Callis 13623.

Four elections for regional directors resulted in defeat of the top recipient of first-choice votes when second-choice votes were added, as follows. In the 1978 Region VI election the distribution of first-choice votes was Alan Nixon 1741, Richard

Lemmon 1647, and Jean'ne Shreeve 769. The distribution of first- plus second-choice votes was Lemmon 1916 and Nixon 1913. In the 1984 Region VI election the distribution of first-choice votes was Attila Pavlath 2185, Jean'ne Shreeve 2139, and

Orville Hill 1163. The distribution of first- plus second-choice votes was Shreeve 2427 and Pavlath 2339. In the 1985 Region V election the distribution of first-choice votes was Louis Sacco, Jr. 2279, Robert Brasted 2134, and John Verkade 1969. The distribution of first- plus second-choice votes was Brasted 3048 and Sacco 2880. In the 1987 Region V election the distribution of first-choice votes was Louis Sacco, Jr. 2195, John Verkade 2139, and Dwaine Eubanks 1229. The distribution of first- plus second-choice votes was Verkade 2464 and Sacco 2330.

In the 1986 four-way election for Region IV director, the vote distribution was Robert Fox 1781, William Nevill 1411, E. E. McSweeney 1303, and David Shirley 1233. In the run-off election the order of finish was reversed: Nevill 2829, Fox 2513.

In 14 other regional director elections with more than two candidates, the second-choice votes did not change the outcome. Thus, the use of second-choice votes or run-offs has changed the outcome of some elections.


In addition, to avoid electing a candidate not favored by a majority of the electorate, at least one other reason exists for having second-choice votes. With our two-party system in the U.S., second-choice votes give a minor party candidate a more equitable chance. Some voters may feel that

...a second-choice vote enables voters to choose between two major candidates even if their preferred candidate is not elected.

voting for a minor party candidate wastes their vote if that candidate has little chance of winning. However, a second-choice vote enables voters to choose between two major candidates even if their preferred candidate is not elected. For a system of second-choice votes to be workable in U.S. presidential elections, our electoral college system would require changing. A few other countries (for example, Australia) do have election procedures allowing each voter multiple choices in a prioritized order. Even Russia requires a run-off election if no presidential candidate receives a majority of votes.

In conclusion, we citizens of the United States would do well to adopt a balloting procedure that ensures elections by majorities. The ACS has shown that such procedures can work and do affect the outcomes of some elections.

Wendell L. Dilling



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David Stickles Receives 2000 National Chemical Technician Award

By Connie Murphy and Tina Leaym

The ACS Division of Chemical Technicians honored David L. Stickles with the 2000 National Chemical Technician Award. A plaque commemorating the award was presented to Dave recently at a banquet held in his honor at the National ACS Meeting in San Francisco. The Midland Section extends hearty congratulations to Dave for achieving this status on a national scale!

Dave has worked at Dow Corning Corporation in Midland for over 25 years. He helped develop Dow Corning's first commercial solventless paper coating system, Syl-Off® 7044 Coating and Syl-Off® 7069 Release Modifier. He led the development of a new fluorosilicone release technology for silicone pressure sensitive adhesives, Syl-Off® 7785 Coating and Syl-Off® 7560 Crosslinker. He is currently a Senior Science & Technology Technologist in the Paper Industry Group. He has numerous publications, patents, and awards. Dave is a recognized expert in release coatings and provides training for Dow Corning customers and Dow Corning employees.

Dave was instrumental in bringing the ACS organization for chemical technicians, now known as the Mid-Michigan Technician Group (MMTG), to Midland. He was a steering team member in 1991, and he continues to be actively involved. While Dave was serving as Chair-elect of MMTG, the Chairperson resigned. Dave stepped up to the plate, leading the technician group so well that it received an award from the national organization (TECH) that year! One might think that this would detract some enthusiasm from the following year. Instead of showing signs of burn-out, Dave's second year was also award-worthy. In 1997 the group received a second TECH award. Additionally, Dave designed and continues to maintain the MMTG web site.

Dave's commitment to our community is well-known. He has volunteered his time to community organizations such as Big Brothers/Big



Sisters for many years. “Sci-Fest” is one of his most outstanding contributions. At the annual event, held in conjunction with National Chemistry Week, numerous science-oriented community programs (water treatment plants, mosquito control programs, astronomy clubs, glass blowers etc.) exhibit and conduct hands-on demonstrations. Teachers, school children, and families from five counties are invited to attend. The goal of the event is to pique children’s interest in science at an early age. Dave has chaired this event for several years, and it is a huge success—attendance has been estimated at 2,000 students, parents, and teachers each year!

Dave has also taken an active role in the Midland Section of the ACS, serving as the 1999 secretary of the section and currently as a director.

The National Chemical Technician Award, sponsored by The Dow Chemical Company Foundation, is presented annually to a chemical technician who has demonstrated an extremely high degree of professionalism. Criteria used to judge the award include technical skills, communication skills, safety, reliability, leadership, teamwork, publications, and presentations. Additional professional and community activities are also considered.

In Brief...

MMTG will hold a lunch seminar on “The Basics of Investment” June 14 from 11:30 a.m. to 12:45 p.m. For more information, contact Janet Smith at 517-496-6860, janet.smith@dowcorning.com.



Mark August 18 on your calendar to attend Professional Scientific Society Day at the Midland County Fair. The theme will be “Polymers, Plastics, and Sports” and there will be food, rides, entertainment booths, and more. Look for more information in future issues of *The Midland Chemist*.

The symposium “Diversity: A Requirement for Success” will be presented at the American Chemical Society Central Regional Meeting on May 17, 2000, beginning at 1:00 p.m. at the Northern Kentucky Convention Center. Speakers are nationally/internationally famed and include Dr. Isiah Warner (Louisiana State University), Mr. Al StClair (P&G/Manager Global Quality Assurance), Dr. Helen Free (Past ACS President), and Dr. Zafra Lerman (Columbia College). For registration/information visit the meeting web site at www.cmacs2000.org.

16th Biennial Conference on Chemical Education to be Held at U of M

By Ann Birch

The Division of Chemical Education of the American Chemical Society holds a major conference every two years to explore issues related to the teaching and learning of chemistry. These Biennial Conferences on Chemical Education are hosted by universities all over the country and draw chemistry educators from every level and from all over the world. The 16th Biennial Conference on Chemical Education will be held July 30–August 3, 2000, at the University of Michigan, Ann Arbor.

These conferences are a rich mix of symposia, workshops, chemical demonstrations, poster sessions, exhibits, and lectures on the latest research developments in chemistry, as well as plenary lectures and social events. The timing of the conference is such that many of the participants bring their families as part of their vacation, so events for children are also included. The conferences have been attracting 1,500 to 1,800 participants, and it is anticipated that as many as 2,000 will come to Ann Arbor.

The Detroit Section of the American Chemical Society is offering \$100 towards the registration fee for area high school teachers. This gift is designed to encourage area high school teachers to participate in what promises to be an exciting conference. Teachers will not be obligated in any way by accepting this gift. This offer is limited to the first 100 teachers who respond.

If you are interested, contact Tim Graham at tsgraham@hotmail.com or phone 734-246-1008 x2332 for details. For details on registration and/or presenting at the conference visit the website at <http://www.umich.edu/~bcce>.



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First Call for Posters: 2000 Fall Scientific Meeting

By Fred Vance

Please consider presenting a poster at the Fall Scientific Meeting, to be held in Midland, Michigan, Saturday, October 28, 2000. Abstracts are being accepted through July 15, 2000. See the instructions in the form of an example below for preparing your abstract. Abstracts can be sent by e-mail or conventional mail. Please submit your abstract to:

Dr. David S. Karpovich ph. 517-790-4349; dsk@svsu.edu
Department of Chemistry fax 517-790-2717
Saginaw Valley State University
248 Science Bldg.
7400 Bay Road
University Center, MI 48710

Also, the program committee is organizing symposia. If you have ideas for symposia or are interested in organizing a symposia, please contact: Dean Millar, dmmillar@dow.com (517-496-3097).

Instructions for Preparing Abstracts for the Fall Scientific Meeting of the Midland Section of the American Chemical Society: John Doe and Mary Smith, Department of Chemistry, Saginaw Valley State University, University Center, MI 48410

Use Microsoft Word (IBM or Macintosh) or WordPerfect (IBM or Macintosh) to create your files, with only one abstract per file. Use Times font—12 point size. Single space your work and double space between paragraphs. Do not use any indentations. **Bold** the titles only. The body copy of the text should be typed in normal type. Use superscript and subscript and correct symbols where appropriate. Use *italic* only when required. All copy should be typed flush left. Do not center or justify your type. Use a four and one half inch wide line.

Each abstract is limited to a maximum of a 4-line title and 1300 characters in the body of the abstract. The information should appear in the following order: title, author list with complete address; presenter underlined; one blank line between title and abstract. Electronic submissions are preferred.

ACS Fall Scientific Meeting: Get Involved!

By Chitra Subramaniam

Interested in getting involved with your local chapter of the American Chemical Society? Here is a great opportunity to serve on one of the subcommittees preparing for the Fall Scientific Meeting of the Midland Section ACS on October 28, 2000, at the Dow Learning Center.

Opportunities for volunteers are available in the areas of registration, program, facilities, poster session, workshop, publicity, booklet, and keynote. Volunteering for this event also serves as a platform to network with scholars and people from the industry and can uniquely enhance your career opportunities. To obtain further details regarding a particular event or for any other inquiries, contact:

Fred Vance
The Dow Chemical Company
1776 Bldg., E-2B
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Graham to Speak on Science in Russia

By Eldon Graham

As part of the MATRIX:MIDLAND Festival 2000, Loren Graham will give a presentation on “The Current State of Science and Technology in Russia” on Tuesday, June 6, at 7:30 p.m., in the Grace A. Dow Library Auditorium. During the last years of the Soviet Union, it possessed the



largest community of scientists and engineers in the world. Dr. Graham will present a timely discussion of the consequences of the fall of the Soviet Union on the Russian scientific establishment and distinct problems for the future.

Since the fall of the Soviet Union, a number of reforms have been attempted: the introduction of peer review in fundamental research; the creation of private educational and research organizations; and greater reliance on foreign sources of funds, both public and private. Unfortunately, these reforms have been accompanied by two deep crises: the

drying up of governmental funds for the support of science and technology, and the brain drain abroad of some of Russia’s leading scientists and engineers.

Loren Graham is professor of the history of science at MIT and a member of the executive committee of the Davis Center for Russian Studies at Harvard University. Before studying history in graduate school he was a chemical engineer and worked briefly for The Dow Chemical Company in Midland. He received his Ph.D. in history from Columbia University in 1964 and also studied at Moscow University in the USSR. He has taught at Indiana U., Columbia U., MIT, and Harvard.

Dr. Graham is the author of over a dozen books, most of them on the history of Russian science, but he has also published a book on the history of Native Americans in Michigan (*The Face in the Rock*) and on the general history of science (*Between Science and Values*). His book *Science and Philosophy in the Soviet Union* was nominated for the national Book Award, and several other of his books have received national honors. In 1997 he was awarded the George Sarton Medal by the History of Science Society, the highest award given by that organization. He has appeared on national television (NOVA, The McNeil-Lehrer Report) and recently was featured on the PBS program “Citizen Kurchatov.” He is a member of the

American Academy of Arts and Sciences and the American Philosophical Society and is a foreign member of the Academy of Natural Sciences and the Academy of Humanitarian Sciences of Russia. He spends his summers in Michigan at a remote lighthouse on an island in Lake Superior where there is no electricity. He and his family bought the ruined lighthouse and restored it to its earlier pristine condition. He writes most of his books there, using solar power for his computer.

Cosponsors of this event include The Dow Chemical Company Foundation, the Midland Section of the American Chemical Society, Sigma Xi, and the American Institute of Chemical Engineers (AIChE). There will be a reception sponsored by the American Chemical Society in the library lounge following the talk. Tickets to the presentation are \$15 adults, \$10 students and are available at the Midland Center for the Arts box office at 517-631-8250.

Call for Year 2001 Officer Candidates

By Steve Keinath

Here's your chance to become more involved in your local ACS section! We are seeking candidates for the following positions for the year 2001.

One-Year Terms

- Chair-elect
- Secretary
- Treasurer
- Chair, Nominations and Elections Committee

Three-Year Terms

- Directors (three positions open)

If you are interested in running for any of these positions or know someone who might be interested, please contact Steve Keinath, Chair, Nominations and Elections Committee, at 517-832-5555, ext. 588 or via e-mail at skeinath@mami.org.

If you have questions regarding the duties and responsibilities of these positions, contact the current officers. They are listed, along with their phone numbers, e-mail addresses, etc., on the Midland Section ACS web site at http://www.cst.cmich.edu/org/acs_midsec/Leaders.htm. You can also look up the job descriptions for these positions on the web site. Click on jobs that may be of interest!

Southeast-Southwest Regional Meeting Announced

By Ann Birch

The 52nd Southeast and 56th Southwest Joint Regional Meeting, hosted by the Louisiana Section, will be held at the Hyatt Regency Hotel, New Orleans, LA, December 6–8, 2000. The meeting will include 35 planned symposia, as well as several general lecture and poster sessions including one for undergraduates from which contributions are solicited.

The topics covered in the symposia include chemically modified surfaces, advances in bioanalytical mass spectrometry, miniaturized chemical analytical systems, chiral separations, macromolecules in signal transduction, chemical modification of textile fibers, the role of the laboratory in the learning process, nanomaterials, supramolecular chemistry, computer-aided drug discovery, crystal engineering, organic electronic materials, chiral carbanions, advances in physical chemistry of nanostructures and others.

The symposia represent the following chemical divisions: Analytical, Biochemistry, Cellulose, Paper and Textiles, Chemical Education, Inorganic, Medicinal, Materials, Organic, Physical, Polymers, and Undergraduate. Abstracts are due by October 1, 2000. The preferred form of abstract submission is by an MS Word document e-mail attachment of the standard ACS form available from the ACS web site.

Abstracts should be sent to the program chair, Ronald F. Evilia, phone (504) 280-6313, e-mail acscm@uno.edu. If necessary, a hard copy of the completed abstract form may be sent to Dr. Ronald F. Evilia, Dept. of Chemist, University of New Orleans, New Orleans, LA. Meeting and New Orleans information are available at the meeting web page: <http://www.chem.uno.edu/ACSMMeeting>.

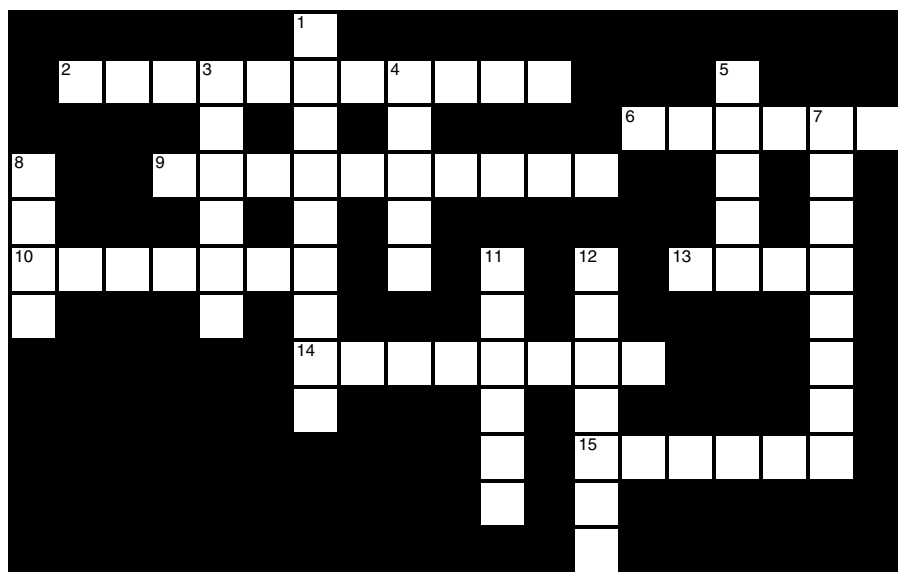
Answer to Last Month's ChemPuzzler

Thanks again to Marcia Dilling for this intriguing ChemPuzzler.

1	C	C	C	C
2	O	O	O	O
3	P	P	P	P
4	Y	Y	Y	Y

May ChemPuzzler

Whose Law Is It, Anyway?

**Across**

2. The absorption of light by a solution changes exponentially with the concentration, all else remaining the same.
6. In atomic processes, the wavelength of fluorescent radiation is always longer than that of the exciting radiation.
9. Ions have independent migrations, and the conductance of a solution is the sum of the conductances of the anions and cations.
10. At constant volume, the pressure of a confined gas is proportional to its absolute temperature.
13. The heat evolved or absorbed in a chemical process is the same whether the process takes place in one or in several steps.
14. Equal volumes of gases at the same temperature and pressure contain the same number of molecules regardless of their chemical nature and physical properties.
15. In any mixture of gases each constituent exerts its pressure independently as if the other constituents were absent, and the solubility of mixed gases in liquid is proportional to the partial pressures of each.

Down

1. At constant pressure the volume of a confined gas is proportional to its absolute temperature.
3. The vapor pressure of a substance in equilibrium with a solution containing the substance is equal to the product of the mole fraction of the substance in the solution and the vapor pressure of the pure substance at the temperature of the solution.
4. The equation describing how a system of parallel atomic layers in a crystal reflects a beam of x-rays with great intensity.
5. The volume of a sample of gas varies inversely with the pressure if the temperature remains constant.
7. The energy of an electron emitted from a system in the photoelectric effect is $h\nu - W$.
8. The rate of diffusion of matter across a plane is proportional to the negative of the rate of change of the concentration of the diffusing substance in the direction perpendicular to the plane.
11. The rate of diffusion of a gas is inversely proportional to the square root of its density.
12. The amount of any substance dissolved or deposited in electrolysis is proportional to the total electric charge passed.

Important Dates on the Midland Section Calendar

- May 1 Midland Section board meeting, SVSU Curtiss Hall, room 203, 7:00 p.m.
- May 8 Deadline for June issue of *The Midland Chemist*
- May 15–19 Professor Edwin Thomas, “Lectures on Polymer Morphology,” MMI Turner Alfrey Visiting Professor, Michigan Molecular Institute (517-832-5555, ext. 0)
- May 16–19 32nd Central Regional Meeting, Covington, KY (www.cmacs2000.org)
- May 16 Joint SPE/ACS Meeting—Professor Edwin Thomas, “Hi-tech Developments Utilizing Block Copolymers,” Meeting Room 8/9, Ashman Court Hotel, Midland, 6:00 p.m. (Burris Ghoston, 517-636-3979)
- June 5 Midland Section board meeting, CMU, 264 Dow Science Bldg., 7:00 p.m.
- June 6 Dr. Loren Graham, “The Current State of Science and Technology in Russia,” Grace A. Dow auditorium, 7:30 p.m. (517-631-8250 for ticket information)
- June 14 “The Basics of Investment,” MMTG Lunch Seminar, 11:30 a.m. to 12:45 p.m. (Janet Smith, 517-496-6860, janet.smith@dowcorning.com)

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