



August 1998
Volume 25, Issue 1

The Spectrum

Inside this Issue

- 2** Letters to the Editor
- 3** SAS Officers
- 4** Velmer Fassel - As We Knew Him
- 9** SAS Committees
- 13** SAS Governing Board Meeting Minutes and Reports from Pittcon 98
- 25** What is Spectroscopy? A Letter to Paul
- 26** Presentation of SAS Honorary Membership to Bourdon Scribner
- 27** The SAS Couples Quiz
- 28** Pittsburgh Conference 1998 Retrospective

The Spectrum Newsletter
13507 Old Annapolis Road
Mount Airy, Maryland 21771-7723
Epstein@hood.edu

Memorial Issue Honoring Professor Velmer Fassel

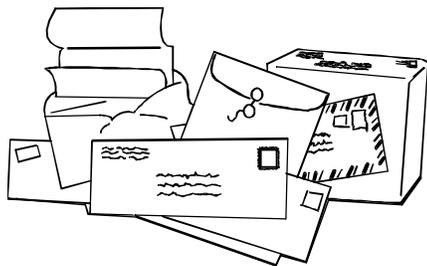
Professor Fassel, SAS Honorary Member and pioneer in flame emission, ICP, and ICP-MS, died at his home in San Diego on Wednesday, March 4, 1998. He was responsible, probably more than any other spectroscopist, for the design of modern analytical instrumentation for elemental analysis by emission spectroscopy that is used around the world today. This issue of the SAS Spectrum honors his memory through the eyes of some of his former students and friends,



including Marvin Margoshes, Monte Evens, Royce Winge, Sam Houk, and Akbar Montaser.

Bentley, Slavin, Margoshes, and May to Receive SAS Awards at FACSS 98

Freeman Bentley and Walter Slavin will receive Honorary Membership; Marvin Margoshes will receive the Distinguished Service Award; and Leopold May will receive Emeritus Membership in SAS at the 1998 FACSS meeting in Austin, TX. The award recipients will be honored for their contributions to analytical chemistry and spectroscopy and to the Society at the 40th Anniversary Celebration and Reception to be held on Tuesday evening of the conference.



(Editorial note: The following letter from Walter Slavin was received in response to a letter to the editor from Dick Reiss, published in the December 1997 issue of the SAS Spectrum)

Dear Editor:

Jack Kerber of Perkin-Elmer has drawn my attention to the letter on page 2 of the current issue of the SAS SPECTRUM, submitted by Dick Reiss. Reiss says "a gentleman by the name of Dr. Van Zandt Williams and I (i.e., Dick Reiss) were the ones who initiated the advent of AA at Perkin-Elmer." That is not an accurate statement, though the truth is complex.

In 1991, I tried to report the beginnings of atomic absorption in an A-Page article in ANALYTICAL CHEMISTRY, Volume 63, pages 1033A-1038A. I carefully assembled the company records at that time to be sure that I gave credit where credit was due. In fact, there are many individuals who were involved. In that article, I mentioned Van Zandt Williams, who was head of technical activities at the company at that time. I spoke of Dick Reiss in connection with selling the Model 214, a very early limited-edition product.

Jim Robinson, then at Esso Research in Baton Rouge, has claimed credit for starting AA at

Perkin-Elmer in a letter in Anal. Chem., 52, 1368A (1980). He claims to have been the first US user of AA and to have been the stimulant behind Perkin-Elmer's entry into AA. But Alan Walsh had a consulting relationship with Perkin-Elmer in infrared spectroscopy prior to his work in AA and had approached the company at a very early date after his first publication in 1955.

My A-page article names many other people, both in and outside Perkin-Elmer, who might lay partial claim to have initiated AA at the company. Success always finds many claimants for credit.

Very truly yours,

Walter Slavin

Meeting Calendar

Oct 11 – 16, 1998

FACSS XXV, Austin, TX

<http://facss.org/info.html>

Nov 15 – 20, 1998

Eastern Analytical Symposium

Somerset, NJ

<http://www.eas.org/>

March 7 – 12, 1999

50th PITTCON, Orlando, FL

<http://www.pittcon.org/>

Sept 21 - 26, 1999

XXXIth CSI

Ankara, Turkey

<http://www.metu.edu.tr/~wwwcsi31/>

Oct 24 - 29, 1999

FACSS XXVI, Vancouver, BC

<http://facss.org/FACSS/Vancouver.html>

For a more detailed listing, access the SAS web site at:

<http://www.s-a-s.org/events.html>

SAS Executive Committee Meeting at Pittcon 98



Society for Applied Spectroscopy Officers

President: Joseph Caruso

University of Cincinnati, Chemistry Department, MI #172
Cincinnati, OH 45221
513-556-5858 (voice) josephcaruso@uc.edu

President-Elect: Robin Garrell

University of California, Department of Chemistry
Los Angeles, CA 90095-1569
310-825-2496 (voice) 310-206-4038 (fax) garrell@chem.ucla.edu

Past-President: Kathryn Kalasinsky

Armed Forces Institute of Pathology, Division of Forensic Toxicology
1413 Research Boulevard, Rockville, MD 20706
301-319-0055 (voice) 301-319-0628 (fax)
KALASINK_at_AFIP04@email.afip.osd.mil

Secretary: Alexander Scheeline

63 Roger Adams Lab, School of Chemistry, University of Illinois
600 S. Mathews Ave, Urbana, IL 61801
217-333-2999 (voice) 217-244-8068 (fax) scheelin@aries.scs.uiuc.edu

Treasurer: Marvin Margoshes

69 Midland Avenue, Tarrytown, NY 10591
914-631-2699 (voice and fax) Marvin3809@aol.com

Executive Administrator: Bonnie A. Saylor

Society for Applied Spectroscopy, 201B Broadway St
Frederick, MD 21701-6501
301-694-8122 (voice) 301-694-6860 (fax) exadsas@aol.com

Newsletter Editor: Michael S. Epstein

Dept of Chemistry and Physics, Hood College, Frederick, MD 27101
301-696-3677 (voice) 301-869-0413 (fax) epstein@hood.edu

Journal Editor: Joel M. Harris

Department of Chemistry, University of Utah, 215 South 1400 East
Salt Lake City, UT 84112-0850
801-581-7543 (voice) 801-581-8181 (fax) appl_spec@chemistry.utah.edu

Membership Education Coordinator: Dave Styris

205 Craig Hill, Richland, WA 99352
509-376-1907 (voice) dstyris@aol.com

Parliamentarian: Rina Dukor

Vysis, Inc.
3100 Woodcreek Drive, Downers Grove, IL 60515
630-271-7193 (voice) 630-271-7008 (fax) rydukor@vysis.com

Velmer A. Fassel - as we knew him



Velmer Fassel died at his home in San Diego on March 4, 1998, at the age of 78. An obituary is in the May, 1998 issue of Applied Spectroscopy. Here, in an article prepared by Marvin Margoshes, some of his students and long-time associates share their memories of him.

≈

Marvin Margoshes:

It isn't a great idea to let chance have a pivotal effect on your life, but sometimes it turns out well. Chance brought me to Velmer Fassel as a graduate student, and that was very good luck.

I was one of the veterans who came out of the Army in 1945-1946, determined to go to college. Many of us who majored in chemistry were competing for graduate school slots in 1950, and getting accepted by any famous professor was difficult. The Iowa State College Chemistry Department had openings and there were half-time jobs at the Ames Lab, so that is where I went in September, 1950. I was

assigned to Velmer Fassel because I was interested in analytical chemistry. I had never heard of him. I didn't know that he had earned his doctorate and been appointed Assistant Professor only three years earlier. I didn't know that I was only his second Ph.D.-seeking student, or that the first one had started only the previous year.

But Velmer had more experience than I then knew about. Only a year after he came to Iowa State in 1941 as a graduate student, he was put in charge of the analytical spectroscopy laboratory of the program at Ames to make pure metallic uranium for the Manhattan Project. By 1950, he was an experienced spectroscopist and laboratory manager, and he had formulated objectives and standards for his students. He steered me away from a degree in analytical chemistry to take more challenging courses in physical chemistry. I was allowed to have a minor in analytical chemistry, but only if I also pursued a minor in physics. Besides the course work and our research, Fassel's students and his professional staff were expected to take turns at giving presentations on their work at Saturday-morning seminars.

Velmer was not a rigid taskmaster. He established goals for each of us, but he allowed leeway in reaching them and the freedom to go off on tangents. He even allowed me to formulate my own thesis research project. It was OK to have projects with other faculty members. It was

OK to seek advice from other professors. He was a gentle man, though firm. I never heard him speak in anger, but neither did I ever know him to compromise his standards

Fassel had by then established habits that served him well throughout his career. One was to take great care in writing and editing journal articles. His co-authors felt frustrated by how long it took to get a manuscript to the point where he agreed it was ready to send out. Bob Heidel, one of the full-time staff, had a sign over his desk where Fassel was sure to see it, saying, "Behold the turtle. He never gets anywhere until he sticks his neck out". When it was my turn to submit my first manuscript for publication, I impetuously sent it to a journal while Fassel was on vacation, before Fassel had approved it. When he came back, I put a copy on his desk. I don't recall that he was visibly angry about my tactic, but I never dared to do it again.

Years later, when I took over from Velmer as Editor of *Spectrochimica Acta*, I found myself in the uncomfortable position of having to reject one of his manuscripts. I struggled for some time to find a way to do this without offending him. The solution, I decided, was to tell him the truth, carefully worded. I wrote in the letter of rejection that the manuscript wasn't up to his usual high standards. He accepted the decision with good grace.

nately, his health did not improve after that.

≈

F. Monte Evens:

The following are some reflections from my long term relationship with Velmer as major professor, mentor, and personal friend: I remember him as ...

... a quiet, reserved, proud, and very meticulous individual who always made an effort to set an example in his appearance and his conduct that would be worthy of others to

follow. He believed in having everything well organized. He was a great believer in

written and oral communication. He had no vices except for a libation before dinner and a great passion for golf.

... a brilliant scholar and innovative research director. He had an unusual knack for knowing when to conclude one research project so as to start another. He was a prolific communicator who insisted that the correct grammar and sentence structure be used in all oral and written presentations. He was known internationally for his many contributions to atomic spectroscopy. Perhaps his most significant accomplishment was a ten-year quest to convince the scientific community that

In the early years of his career, Velmer Fassel still had some habits of his small-town upbringing. At my second Pittsburgh Conference (not yet "PittCon") in 1955, a goodly number of the few hundred attendees gathered in the lower-level bar of the William Penn Hotel to watch the Wednesday Night Fights, a fixture of early TV. Just as the fight was about to start, Fassel glanced at his watch, saw that it was 10 o'clock, announced that it was bedtime, and left.

Velmer Fassels' interests outside of science included golf and square dancing, a hobby he shared with his wife, Mary. The Fassel's home in

Ames was custom-built with an oversized finished basement, so they could invite their friends in for an evening of square dancing. Whenever the weather was nice and he could break away, Fassel headed for the college's fine golf course. It was an occasional task for a student, in those pre-beeper days, to go to the golf course to find Velmer and tell him that Dr. Spedding, the head of the Ames Laboratory, wanted to see him. There were persistent rumors in the 1970s that other universities had made attractive offers to Velmer, and that he turned them down because they didn't have golf courses as good as Iowa State's.

When Velmer received the ACS Chemical Instrumentation Award in 1983, I noticed that the way he gave his award address was different from usual, in that he did not project his voice to the audience. I mentioned it to him later that day, and he took the com-



Velmer Fassel talking to Evelyn and Leopold May, at a party at the Margoshes home during the 1st SAS National Meeting (From the SAS archives.)

ment seriously enough to see a doctor. That, it turned out, was the first indication of the Parkinson disease that led him first to cut down the amount of his work and then to retire. The Fassels had built a retirement home in the outskirts of San Diego, overlooking a golf course. The illness that caused him to retire kept him from enjoying that hobby. He and Mary delighted in visits from their students and friends, and hearing the latest about their careers and families. My wife and I last visited them August 1997, when they spoke hopefully about a new doctor Velmer was seeing about his Parkinson's disease. Unfortu-

"Inductively Coupled Argon Plasmas" truly had a significant role to play as a new emission source and as a unique ion source. The ICAP role probably exceeded even his early expectations, considering the number of research projects and the number of the current routine laboratory operations that use ICP and/or ICP-MS systems.

It was unfortunate that his personality and professional standards did not let him have a more warm and responsive relationship with many of his graduate students. His attention to minute details and efforts to achieve perfection did not endear him to most of the students during their tenure at ISU. Many have memories of the dreaded Saturday morning seminars, the never ending search for the conclusion to a thesis project, and the many, many revisions that had to be made for manuscripts. Most of his students, however, later learned to appreciate this rigorous training when they started their professional careers. Exactly how he happened to create the learning atmosphere and thorough training program for his students still remains a mystery. It must have been something very special since most of the students from his group have had very successful professional careers. Velmer took great pride in

all of his students accomplishments!!

... a warm, outgoing, personal individual who was always delighted to have you visit with him and his wife at professional



From left, Ivan Glaze, Velmer Fassel, and Monte Evens, at FACSS in 1994

meetings or in Ames. A gracious host and/or companion at special events. He was a person who would make the extra effort to help someone in need or someone who was seeking assistance in securing professional employment. I recall one event in Ames where he was the first and only person to arrive at the scene of a rural, one vehicle auto accident. The immediate and proper first aid he rendered to one of the occupants probably saved a life. True to his style, however, he did not seek any great publicity.

On the lighter side, I remember the annual golf match where he would play a best ball competition against a selected team of four graduate students. He man-

aged to be a gracious victor in all of the matches! I also remember many lovely dinner engagements in Ames when my Conoco responsibilities made it necessary for me to return to the ISU campus. Velmer and Mary were always considerate, warm individuals who made the evening a pleasant and memorable event.

≈

Royce Winge:

Dr. Fassel presented his research accomplishments at many conferences in the United States and throughout the world. When travel by auto was practical, as for example, to the "Mid-America Spectroscopy Symposium" in Chicago, there was often room for a few members of his group to accompany him. These auto trips extended as far as the University of Maryland where the Xth Colloquium Spectroscopicum Internationale was held in 1962. In accompanying Velmer on these trips, it soon became apparent to the group members that departure to points east, as well as the return trips, were timed to ensure arrival at Rock Falls, Illinois at a meal time. On the western edge of this Illinois town was Jules Danish Farm, an outstanding place for dinner. If arrival at meal time was impossible, it was always time to stop there for an exquisite and memorable pastry.

diocre paper, and never played the "numbers game", i.e., increasing the number of papers, number of presentations. His main target focused on solving key, relevant problems in analytical spectrometry. He had clear and graphic ideas, he knew the importance of the subjects, stressed the significance of the projects to his associates, and rammed his ideas home with good, punchy slogans, even those that ran counter to the prevailing

wisdom. Further, Fassel knew how to transfer his knowledge at the right time to the right people in the instrument manufacturing industry. In my view, this attribute played a major role in the world-wide success and acceptance of the ICP-based techniques for elemental analysis.

I attribute Fassel 's genius to ten qualities that surfaced continuously: 1) He had a rich soul. 2) He was a dreamer with goals. 3) On the matters of ethics, he stood like a rock. 4) He held himself to higher standards than anyone else expected of him. 5) He was not afraid to take giant steps. 6) He was always a little more considerate than necessary. 7) The time was always right for him to do what was just and correct. 8) He had the knowledge, but he permitted others to light their candles at it. 9) Fassel loved his family and supported his students

and associates. 10) According to Henry Winkler, "A human being's first responsibility is to shake hands with himself". This is what Fassel accomplished, and quietly educated us to do it ourselves. He was my rock star and



From left: Akbar Montaser, Velmer Fassel, Shirin Montaser, Mary Fassel, 1987

Hercules at the same time. He was one of a kind.

By all reasonable standards, Fassel was a good person. He was known for his promptness and timing. His Christmas cards, with his exquisite hand-written notes, consistently arrived way before ours were mailed. He seriously believed that friendship improves happiness and diminishes misery! His goodness, inspiration, and free spirit were contagious! He challenged us by making us go beyond our norms, not only to discover new science, but new things about ourselves that we never really knew. He never mistook knowledge for wisdom, he consulted with students, associates, and other colleagues on the trait of the work, never took for granted the things that deserve gratitude, and was

never short of kind and easy words. We thank him and will remember him for his exceptional science, for his dignity, grace, and kindness which he gave all of us. He made each of us a better human being. I am

extremely fortunate and proud for my association with Fassel for nearly 25 years. He was one of my primary mentors and a close personal friend who changed my professional life. Fassel and his lovely Mary enriched my family and myself in an exemplary fashion.

≈

Editor's note: My only interaction with Dr. Fassel (besides trembling with fear when he was in the audience and I was a graduate student giving a talk on atomic fluorescence) was around 1975, when I and a colleague from NBS visited his laboratory to learn how to set up an ICP in our laboratory. When we arrived he was experimenting with ultrasonic nebulizers and was excited about recent results that indicated that an order-of-magnitude improvement in detection limit could be obtained by increasing the ultrasonic frequency by a similar amount. The next day he apologized, informing us that the results were the result of an erroneous dilution. He didn't blame the student and accepted responsibility himself for the error. As Akbar noted, on the matters of ethics, he stood like a rock. I can't think of a finer way to be remembered!

1998 SAS Committee Members

The following is the 1998 SAS Committee List. Terms run from March to March.

Awards

Chair

Nohora Vela
ManTech Environmental
Research Service Corp.
919 Kerr Research Drive
P.O. Box 1198
Ada, OK 74821
ph: (405) 436-8562
fax: (405) 436-8501
vela@ad3100.ada.epa.gov

Chair-Elect

Tom Vickers
Department of Chemistry
Florida State University
Tallahassee, FL 32306-3006
ph: (904) 644-1846
fax: (904) 644-8275
vickers@chem.fsu.edu

Past-Chair

Jenny Grasselli
150 Greentree Road
Chagrin Falls, OH 44022
ph: (216) 247-7374
fax: (216) 247-3360

Constitution

Chair

Robin Garrell
Gentex Corporation
600 N. Centennial Street
Zeeland, MI 49464
ph: (616) 772-1590
fax: (616) 772-7348
suef@gentex.com

Past President

Joe Caruso
University of Cincinnati
Chemistry Department MI #172
Cincinnati, OH 45221
ph: (513) 556-5858
fax: (513) 556-0142
joseph.caruso@uc.edu

96-98 Sue Franz
618 West Shore Drive
Ashburnham, MA 01430
ph: (508) 827-4498
fax: (508) 827-4498
franz@delphi.com

97-99 Roy Cain
1461 Oakwood Avenue
Akron, OH 44301
ph: (216) 724-4171
fax: (216) 724-4171

98-2000 Richard W. Bormett
Renishaw, Inc.
623 Cooper Court
Schaumburg, IL 60173
ph: (847) 843-3666
renincrbw@aol.com

Local Section Affairs

Chair

Robert Pogue
Science Applications Int. Corp
4031 Colonel Glenn Highway
Beavercreek, OH 45431
ph: (937) 431-2301
robert.t.pogue@cpmx.saic.com

Past Chair

Mary Tungol
Hewlett Packard Company
Mail Stop 711B
1040 NE Circle Blvd
Corvallis, OR 97330-4239
ph: (541) 715-5521
fax: (541) 715-0568
mwtungol@proaxis

Chair-Elect

Scott Saavedra
Department of Chemistry
University of Arizona
Tucson, Arizona 85721
ph: (520) 621-9761
fax: (520) 621-8407
sssaaved@ccit.arizona.edu

97-98 Ed Bartik
FBI Academy
Forensic Science Research
Quantico, VA 22135
ph: (703) 640-1537
fax: (703) 640-1491

98-99 Mikhail Belkin
University of Cincinnati
ML 0172
Cincinnati, OH 45221
ph: (513) 556-9304
fax: (513) 556-9239
belkmm@ulcbch.san.uc.edu

Membership

Chair

Vahid Majidi
614 Meadow Lane
Los Alamos, NM 87544
ph: (505) 667-0040
fax: (505) 665-5982
email: majidi@lanl.gov

Past Chair

Jim Reeves
USDA Building 200
Room 124 B East
Beltsville, MD 20705
ph: (301) 504-8294
fax: (301) 504-8162
jreeves@ggpl.arsusda.gov

Chair-Elect

Mike Carrabba
EIC Laboratories
111 Downey Street
Norwood, MA 02062
ph: (617) 769-9450
fax: (617) 769-2099
carrabba@eiclabs.com

August 1998

97-98 John Hellgeth
22 Arnoldale Road
West Hartford, CT 06119
ph: (203) 233-7129

98-99 Kathy Ackley
University of Cincinnati
Mail Location 0172
Cincinnati, OH 45221
ph: (513) 556-9304
fax: (513) 556-9239
ackleykl@email.uc.edu

Nominating

(Terms begin July 1, 1998)

Chair

Cynthia Mahan
1531 42nd Street
Los Alamos, NM 87544-1925
ph: (505) 662-2501

Chair-Elect

Richard A. Palmer
Department of Chemistry
Duke University
Durham, NC 27708-0346
ph: (919) 660-1539
rap@chem.duke.edu

98 Conrad Gregoire
Geological Survey of Canada
601 Booth Street
Room 721
Ottawa, ON K1A 0E8
Canada

98 Jerry Scholnik
CETAC Technologies
16211 Chicago Street
Omaha, NE 68118
ph: (402) 738-5408
fax: (402) 733-5292
shkolnik@cetac.com

98 Dave Trimble
Union Camp Corporation
34034 Union Camp Drive
Franklin, VA 23851
ph: (757) 569-4596
fax: (757) 569-5256
dtrimble@i2020.net

98 Larry Nafie
Syracuse University
Chemistry Department 1-014
CST
Syracuse, NY 13244-4100
ph: (315) 443-4109
fax: (315) 443-4070
lnafie@syr.edu

Tour Speaker

Chair

Richard Browner
Georgia Institute of Technology
School of Chemistry and Biochem-
istry
Atlanta, GA 30332
ph: (404) 894-4020
fax: (404)894-1646
rick.browner@chemistry.gatech.edu

Past Chair

Paul Bourassa
2097 Glenalden Drive West
Germantown, TN 38139
ph: (901) 758-2703
fax: (901) 755-4942
paulnb@aol.com

Chair-Elect

Shuming Nie
Department of Chemistry
Indiana University
Bloomington, IN 47405
ph: (812) 855-6620
nie@indiana.edu

97-98 Jill Olinger
Eli Lilly & Co.
Lilly Corporate Center 1523
Indianapolis, IN 46285
ph: (317) 276-4407
olinger_jill_m@lilly.com

98-99 Rajiv Soman
University of Cincinnati
2220 Victory Parkway
Cincinnati, OH 45206
ph: (513) 556-4250
fax: (513) 556-4224
rajiv.soman@uc.edu

Publications

Chair

John Olesik
Ohio State University
Department of Geoscience
275 Mendenhall Lab
125 S Oval Mall
Columbus, OH 43210
ph: (614) 292-7688
fax: (614) 292-7688
email: olesik.2@osu.edu

Past Chair

Neil Lewis
National Institutes of Health
Building 5 Room B1-38
Bethesda, MD 20892
ph: (301) 496-6844
fax: (301) 496-0825
neil@spy.niddk.nih.gov

Chair-Elect

Marc Porter
Iowa State University
Department of Chemistry
Ames, IA 50011
ph: (515) 294-6433

97-98 Tom Malloy
Shell Development Co.
Westhollow Research
P.O. Box 1380
Houston, TX 77251-1380
ph: (281) 544-7255
fax: (281) 544-7091
tbmalloy@shellus.com

98-99 Karen Sutton
University of Cincinnati
Department of Chemistry
Cincinnati, OH 45221-0172
ph: (513) 550-9304
fax: (513) 550-9239
suttonkl@email.uc.edu

Publicity

Chair

Michael Dziewatkoski
3411 Willow Lake Drive
#302
Kalamazoo, MI 49008
ph: (616) 387-2875
fax: (616) 387-2909
michael.dziewatkoski@wmich.edu

Past Chair

Jim Julian
D S M Desotech Inc.
1122 St. Charles Street
Elgin, IL 60120
ph: (708) 468-7740
fax: (708) 468-7785

Chair-Elect

Nancy Kawai
Bruker Instruments, Inc.
15 Fortune Drive Manning Park
Billerica, MA 01821
ph: (508) 667-9580 x223

97-98 Pat Treado
University of Pittsburgh
314 Chevron Science Center
Chemistry Department
Pittsburgh, PA 15260
ph: (412) 624-8621
fax: (412) 624-3846
treadot@pitt.edu

98-99 Claudia Ponce de Leone
University of Cincinnati
Department of Chemistry
Cincinnati, OH 45220
ph: (513) 556-9304
fax: (513) 556-9239
poncede@email.uc.edu

Tellers

Chair

Barbara Barnes
USFDA
1141 Central Parkway
Cincinnati, OH 45202
ph: (513) 684-3501
bbarnes@ora.fda.cog

98 Joe Waggoner
University of Cincinnati
Department of Chemistry
Cincinnati, OH 45220
ph: (513) 556-9304
fax: (513) 556-9239
waggonjw@ucbeh.san.uc.edu

98 Jason Day
University of Cincinnati
Department of Chemistry
Mail Location 0172
Cincinnati, OH 45221
ph: (513) 556-9304
fax: (513) 556-9239
dayjn@email.uc.edu

Meggers

Chair

Sandra Bonchin
Los Alamos National Laboratory
MS J514
Los Alamos, NM 87545
ph: (505) 665-7810
fax: (505) 665-4955
bonchin@lanl.gov

Chair-Elect

Michael Natan
152 Davey Laboratory
Department of Chemistry
Pennsylvania State University
State College, PA 16802
ph: (814) 863-7832
natan@chem.psu.edu

98 John McKiernan
University of Cincinnati
Department of Chemistry
Cincinnati, OH 45221-0172
ph: (513) 556-9304
fax: (513) 556-9239
mckierjn@ucbeh.san.uc.edu

Journal Editor

Joel Harris
University of Utah
Chemistry Department
Salt Lake City, UT 84112
ph: (801) 581-3585
fax: (801) 581-8181
harrisj@chem.utah.edu

Lester Strock Award

Chair

Christine Evans
University of Michigan
Department of Chemistry
Ann Arbor, MI 48109-1055
ph: (313) 763-8012
fax: (313) 747-4865
kenchris@umich.edu

Chair-Elect

Tonya Herne
Building 221, Room A303
NIST
Gaithersburg, MD 20899-0001
ph: (310) 975-5153
therne@nist.gov

Lippincott Award

97-98 John Bertie
University of Alberta
Department of Chemistry
Edmonton, AB T6G 2G2
CANADA
ph: (403) 492-3560
fax: (403) 492-8231
john.bertie@ualberta.ca

August 1998

98-99 Michael Morris
Department of Chemistry
University of Michigan
Ann Arbor, MI 48109-4865
ph: (313) 764-7360
fax: (313) 764-8815
mdmorris@umich.edu

98-99 Victoria McGuffin
Department of Chemistry
Michigan State University
East Lansing, MI 48824
ph: (517) 355-9715 x 244
fax: (517) 353-1793

Membership Education

Coordinator

Dave Syris
205 Craig Hill
Richland, WA 99352
ph: (509) 376-1907
dstyris@aol.com

97-98 Rich Dluhy
University of Georgia
Department of Chemistry
Athens, GA 30602
ph: (706) 542-1950
fax: (706) 542-9454
dluhy@sunchem.chem.uga.edu

97-99 Grace Zorob
1250 Scoville Road
Lexington, KY 40502
ph: (606) 268-8471

98-2000 Gabor Patonay
Department of Chemistry
Georgia State University
University Plaza
Atlanta, GA 30303
ph: (404) 651-3856
patonay@vx3100.gsu.edu

FACSS Delegate

97-98 Kenneth Marcus
Clemson University
Chemistry Department
Clemson, SC 29634
ph: (803)656-5011
fax: (803)565-6613
marcusr@clemson.edu

The Way We Were Back in the Good Old Days when Chemistry Sets were \$1.75

YOU CAN DO ALL KINDS OF EXPERIMENTS WITH THE

CHEMCRAFT OUTFITS

THE WONDERLAND OF MODERN CHEMISTRY

Furnishes Endless Fun and Entertainment Imparts Real Knowledge
MANY RARE AND VALUABLE SUBSTANCES

ABSOLUTELY SAFE
NO DANGEROUS POISONS OR EXPLOSIVES

Every Set Complete with Glass Tubes, Manometers, Apparatus, Liberal Supply of Chemicals, Book of Instructions, etc.

ADDITIONAL SUPPLIES ALWAYS OBTAINABLE

With the CHEMCRAFT sets you can test acids and detect many of the common alkaloids, you can manufacture blue and colored writing inks, make chemical fire and fire ink, manufacture colored fire, test your water supply and determine whether or not it is pure, you can make soap, you can prepare dyes and manufacture pigments, you can make magic writing paper on which water writing just like ink, make many colored chemical plants grow while you watch them, pour ink and wash from the same vessel, you can change water to blood and still to glass, pour ink different colored liquids from the same vessel of water, and do hundreds of other fascinating experiments.

The CHEMCRAFT outfits are designed first of all to be absolutely safe. There are no dangerous poisons, explosive materials, or otherwise harmful substances in any of the sets. The chemicals are no more harmful than many ordinary household materials such as baking powder, washing soda, vinegar, etc.

CHEMCRAFT opens the way to the wonderland of Modern Chemistry. It shows the mystique of Chemical Magic, reveals the wonderful opportunities of Industrial Chemistry, illustrates many of the uses of chemistry in Modern Warfare, and furnishes delightful entertainment for many profitable hours.

Each CHEMCRAFT set contains everything necessary to work all the experiments given in the instructive book which accompanies the outfit. Liberal quantities of all the chemicals, enough to repeat the experiments many times, are furnished, and they will last for a long while. Additional supplies can be obtained any time at small cost.

No. 6275 OUTFIT
This is a dandy set of a very desirable price. With it you can make lots of wonderful experiments each one of which can be repeated many times. There are 14 different Chemicals, but when glass tubes, manometers, etc., together with No. 1 Chemcraft book which gives complete directions, explain all the experiments in a clear, interesting manner, and tell every wonderful and interesting thing about Chemistry.

With Chemcraft No. 1 you can make fire ink and trace, you can make colors, test water, perfume, chemicals, manufacture chemicals, gun powder, colored fire, black and colored ink; you can prepare magic ink and paper, change water into wine and vice versa, pour ink and wash from same vessel and do a lot of other wonderful things. PRICE \$1.75

No. 6276 OUTFIT
Chemcraft No. 2 is much larger than the No. 1 set. It contains 22 different Chemicals and a liberal amount of Apparatus and equipment. There are many rare and valuable Chemicals included in this outfit which represents the biggest value you can get for such a low price. The instructive book which comes with this set gives directions for working forty a hundred wonderful experiments and also tells how and the set for a little while you will be able to do some wonderful additional experiments of your own.

Every purchaser of Chemcraft No. 2 receives a Chemcraft service card, and is entitled to a free subscription to the Chemcraft Chemical. This is the biggest kind of a help in carrying on your experimenting and no one should overlook this offer. PRICE \$3.50



and

SOCIETY FOR APPLIED SPECTROSCOPY
Boston College
Chestnut Hill 67, Mass.

Date _____

Name _____
Last First Initial

Home address _____

Business address _____

Mailing address _____

Name _____ Business _____

Local Section Name _____ No. _____

My payment of \$7.00 for Regular Membership is enclosed.

Field of Interest: Absorption _____ Emission _____ Infrared _____

Raman _____ Mass _____ NMR _____ X-ray _____ Others _____

LOCAL SECTIONS: Baltimore-Washington, Chicago, Cincinnati, Cleveland, Delaware Valley, Detroit, Indiana (Indianapolis), Intermountain (Idaho Falls-Salt Lake City), Milwaukee, New England (Boston), New York, Niagara Frontier, Northern California, North Texas, Ohio Valley, Pittsburgh, Rocky Mountain (Denver), Saint Louis, San Diego, Southern California, Southeastern (Gainesville).

SAS GOVERNING BOARD MEETING MINUTES TUESDAY, MARCH 3, 1998

I. Call To Order

A regular meeting of the Governing Board of the Society for Applied Spectroscopy was called to order by President Joe Caruso 8:09 PM on Tuesday, March 3, 1998 at the Hilton Riverside Hotel in New Orleans, Louisiana.

II. Roll Call

A roll call indicated delegates from 23 of 32 active local sections were present and therefore a quorum for the meeting was obtained. Subsequently, additional delegates including those from 2 additional local sections presented themselves; the following list indicates delegates present during voting portions of the meeting.

Local Section Delegate Roll:

<u>Section</u>	<u>Delegate(s)</u>
1. Arizona	none
2. Baltimore-Washington	Mike Epstein
3. Chicago	Doug Shrader
4. Cincinnati	none
5. Cleveland	Ken Street, Robert Williams
6. Delaware Valley	none
7. Detroit	none
8. Houston	Andrew Scheie
9. Indiana	Scott Lehn
10. Intermountain	Paul Farnsworth
11. Kansas City	Karmie Galle
12. Louisiana	Joe Montalvo
13. Mid-Michigan	N. C. Angelotti
14. Milwaukee	none
15. Minnesota	Becky Dittmer
16. Nevada	Delyle Eastwood
17. New England	Sue Evans Norris
18. New York	Connie Paralusz, Marvin Margoshes
19. Niagara Frontier	Larry Nafie
20. Northern California	none
21. Ohio Valley	Curt Thaxton
22. Pacific Northwest	Mary Tungol
23. Penn-York	W. H. Schuler
24. Piedmont	R. A. Dluhy
25. Pittsburgh	Sigh Manocha
26. Reading	none
27. Rio Grande	Vahid Majidi
28. Rocky Mountain	Booth Law
29. Southern California	Jerold Kacsir, Bruce McIntosh
30. Snake River	John Kalivas
31. St. Louis	Eileen McClendon, Griff Freeman
32. Toledo	Ray Hertz

III. Introductions

President Joe Caruso introduced the Executive Committee and Society staff. Members of the Executive Committee present were:

- President, **Joe Caruso**
- Past president, **Kathy Kalaskinsky**
- President-elect, **Robin Garrell**
- Secretary, **Alexander Scheeline**
- Treasurer, **Marvin Margoshes**
- Journal Editor, **Joel Harris**
- Membership Education Chair, **David Styris**
- Newsletter Editor, **Mike Epstein**
- Executive Administrator, **Bonnie Saylor**
- Parliamentarian, **Rina Dukor**

IV. Meeting Rules of Order

Parliamentarian Rina Dukor recommended that Roberts Rules of Order apply. This was moved by Karmie Galle, seconded by Robert Williams, and approved.

V. Approval of Minutes from October 28, 1997 Governing Board Meeting

Moved, seconded, and approved without discussion.

VI. Reports

- A. President:** Report attached.
- B. Secretary:** Minutes of the previous meeting constitute the Secretary's Report.
- C. Treasurer:** Report attached. Final report from the auditor for 1997 was just received last week. A surplus \$1,700 was recorded for FY97. We already have sold more ads in *Applied Spectroscopy* for this year than all of last year.
- D. Executive Administrator:** Report attached. Updates: Current membership is 2421, compared to 2271 at this time last year. Third renewal notices have not yet been mailed. The office is functioning well, and the auditors are happy. A new bookkeeper will be employed one day every two weeks. So far, 34 new members have enlisted at PittCon.
- E. Journal Editor:** The backlog has improved from 6 months to 4 months (acceptance to publication). Accelerated papers are now accepted (2 so far). For these, publication following acceptance takes less than 2 months. On line availability of the Journal has been achieved. We have changed web editors. Abstracts are up to date through May, June abstracts should be on-line by the end of PittCon. A LabGuide is planned for August, with Ron Williams as editor. Ad income is up, and we are now selling ads based on the technical content of the Journal, rather than just the generic size of the SAS membership. Papers are now grouped by topic to make browsing easier. Reprint prices have been adjusted upward. Member authors get a 15% discount on reprints.
- F. Newsletter Editor:** Two issues are published in May and December, with electronic updates in between. J. D. Winefordner, Velmer Fassel [who passed away during PittCon], and Andy Rekus will be profiled in these issues. The SAS archives CD ROM, containing over 1000 photos, has been prepared and is being distributed at the SAS booth during the conference. More copies of *Arcs and Sparks* may be added.
- G. Membership Education:** Report Attached. The Biological IR Spectroscopy course was given at the Biophysical Society meeting. There were 6 registrants and good feedback. No courses were offered at PittCon. At FACSS there will be at least 4 minicourses. Web-based courses are being pursued.

Acceptance of reports was moved by Karmie Galle, seconded by Paul Farnsworth, and approved.

VII. National SAS Committee Reports

- A. Awards:** Report Attached. The report was presented by President Caruso, noting the Executive Committee recommends approval with an amendment. Leopold May was nominated for Emeritus membership by the Executive Committee on the recommendation of Mike Epstein.
- B. Constitution and Bylaws:** Report Attached. Robin Garrell presented the amendment, based on Governing Board vote in October, which will be submitted to the membership for approval.
- C. Local Section Affairs:** Mary Tungol, chair, presented the report. The Local Section Affairs Handbook is still in process; but the committee hopes to have a draft by FACSS.

- D. Membership:** Report attached. Chair Jim Reeves reports no new ideas for expanding membership.
- E. Nominating:** Report attached. There were no nominations from the floor.
- F. Publications:** Report attached.
- G. Publicity:** No Report. The new chair will be charged to start working with the Office on marketing the society.
- H. Tour Speaker:** presented by chair Paul Bourassa and attached. 95% of arrangements are now made by email. 23 sections are active in the Tour Speaker program this year.
- I. Meggers Award:** No Report
- J. Strock Award:** Report attached
- K. Lippincott Award:** No Report
- L. Tellers:** No Report

Acceptance moved by Paul Farnsworth, seconded by Robert Williams and approved by voice vote.

VIII. Delegate Reports

A. FACSS. Upcoming meetings are in Austin (October 11-15, 1998), Vancouver (1999), Nashville (2000), Detroit (2001), and Providence (2002). FACSS's spring Governing Board meeting will be at noon this Thursday -- Kathy Kalasinsky will substitute for our regular delegates. There was substantial discussion to encourage FACSS to permanently abolish Friday sessions. While consensus was reached at this point in the meeting, formal moving and a vote were postponed to New Business (which see item X.A. below).

IX. Old Business

A. Regionalization: The situation was reviewed by Joe Caruso and (more extensively) Kathy Kalasinsky. A draft regionalization plan was presented (attached). The plan was discussed with the purpose of generating feedback both at the Governing Board meeting and then from local sections, with comments to be returned by June 1. A final report was to be presented at FACSS, together with appropriate constitutional modifications. If passed on this timeline, the revised structure would go into effect January 1, 2000. Rina Dukor reviewed details of the plan (altered from the draft by moving Kansas City to Region VIII, not Region IX). A quorum would still be 2/3 of regions represented. A lively discussion ensued. Among the points presented were examples of inaccuracies in section census data, examples and counterexamples of adequate accountability and representativeness of delegates, problems with section/office communications concerning the identity of delegates, problems with various sections making "strange bedfellows" or dominating regions, and examples of active SAS members who have limited involvement in local section affairs. The whole problem with obtaining a quorum was reviewed. Problems in getting local section officers that correlated with problems getting delegates were aired. The method for finding delegates, funding their travel, rewarding or punishing local sections for regional attendance at Governing Board meetings, and getting reports from delegates to local sections as proposed was felt to be cumbersome. It was unclear to some that regionalization would solve the governance/quorum problem for which it was designed; perhaps lowering the quorum requirement would be the easiest fix. The frequently visited topic of the relative importance, activity, and utility of local and national portions of SAS's operations was rehashed. There is little correlation between section size and delegate attendance; Nevada has only 10 active members but is nearly always represented, while neighboring Northern California is one of the largest sections and hasn't sent a delegate in 3 years. Policies of other societies towards delegate travel were reviewed (several do reimburse delegate expenses). With local section problems in maintaining levels of participation, it is unclear what fraction of SAS membership is active in local sections. Perhaps at-large delegates are in order. Joel Harris suggested creation of technical sections as well as geographic sections for affiliation. Three volunteer members to serve on the ad-hoc Regionalization Committee, Robert Williams, Mike Carraba, and Ray Hertz, were appointed to integrate the input from the Governing Board meeting and from local sections.

- B. 40th Anniversary Celebration.** Robin Garrell presented the list of planned activities. These include:
 - a. one-half day symposium with four speakers who take off speaking about major developments that began in one-decade of the 60s thru 90s and carry their theme forward to the millenium. Historical plus some future prediction is anticipated. Talks will be 40 minutes with a break after the first two. Approval has already been give by FACSS to do this. Robin and Kathy are assisting with arrangements and speaker lists. We will videotape the session for posterity. One hopes that manuscripts and visual aids can be given to the Society for the archives.

- b. Cake at the Tuesday reception and a few brief words from a couple of people in awe of the 40th. Prior editors and officers will be invited to the occasion.
- c. SAS 40th signs/banners at poster session and just a very brief comment as awards are announced. Also special booth banner.
- d. Baseball caps (examples distributed to Executive Committee). In addition to other benefits, if a member gets another new member, they will get a free hat; new members can choose either a free tee-shirt or the spiffy hat. Otherwise, the hat is \$5 for members, tee-shirts are \$10 for everyone (hats \$10 for non-members).
- e. Commemorative photo of past SAS Presidents to be published in the Newsletter.
- f. Commemorative pencils, or napkins, magnets, or other freebie (cheap) for the poster session or reception (plus some at the Society booth for additional PR).
- g. Poster at poster session showing the history of the society (to be assembled by one of our venerable members with a good memory?)
- h. Projecting images from assorted festivities at the Society booth.

X. New Business

A. Friday FACSS sessions: Per the discussion under item VIII, Rich Dluhy moved, Ken Marcus, seconded, and the Board passed unanimous the following:

Friday attendance at the annual FACSS meeting has historically been very poor. Therefore, the scientific sessions and speakers that are scheduled for Friday are placed at a significant disadvantage in terms of visibility and impact for their research. Under these circumstances, the need for Friday sessions has clearly been substantially reduced. Similar concerns have caused the Pittsburgh Conference to eliminate their Friday sessions. Given these concerns, the SAS Governing Board believes that Friday sessions at the FACSS meeting have outlived their usefulness. We therefore strongly urge the FACSS Governing Board to eliminate Friday sessions at the annual FACSS meeting.

B. Corporate Sponsorships: Paul Farnsworth moved and Vahid Majidi seconded the following motion:

SAS's Corporate Sponsor structure should change from a three-tier to a two-tier system, with Sponsorship levels of \$500 and \$1,000. Benefits at the \$500 level will be comparable to our current \$300 level plus one-time use of the SAS mailing list. Benefits at the \$1,000 level correspond to the current \$1,200 level.

Because so few companies now use our middle-tier \$600 Supporting level, this change should increase income while simplifying the sponsorship sales message. Approved by voice note; Bylaw change will be presented for vote at the fall meeting.

C. Page charges, Journal authorship, and Membership: Informational item. In response to a delegate query, Joel Harris indicated that roughly half of Journal authors are domestic members and 5-10% are foreign members (the remainder being non-SAS members). He also indicated that he hoped to set the price structure for reprints to give members a healthy discount sufficient to encourage membership among authors. Various ways to implement such member discounts including automatic charging for a membership to non-members (or something closely related, as SPIE does) or page charges for nonmembers were discussed. Remanded to the Membership and Publications committees for study.

D. Meeting Venue Proposal. The Southern California section has proposed that the Constitutional location for meetings (PittCon and FACSS) be moved to the by-laws, where changes could be made more readily. Remanded to the Constitution and Bylaws committee for study, to be brought forward in October.

E. Nonsuspension. The Constitution allows a Local Section to be declared inactive when a number of conditions are met, among them failure to send a delegate to three successive national Governing Board meetings. Northern California section falls into this category, but otherwise gives every indication of being a thriving Local Section. Thus, the Executive Committee recommends maintaining

Finally, one of the pleasant issues we face this year is how to appropriately celebrate the Society's 40th Anniversary. All-in-all I look forward to working with you in what will be an exciting and fulfilling SAS year. Please contact me, our other officers, or the staff if you have comments or suggestions.

Joe Caruso, President

Treasurer's Report

At the last Governing Board Meeting, in October 1997, I reported that income for the year was below budget and that expense reductions had been made in mid-year, but that there might be deficit for the year of about \$15,000. A part of the income shortfall was in advertising sales for Applied Spectroscopy. The sales are handled by Allen Press, and we have worked with them to improve the sales. Increases in advertising sales and income were achieved sooner than we had expected. As a result, instead of the anticipated deficit we had a surplus of nearly \$1700.

The attached financial tables list the Society's financial position and its income and expenses, for 1996 and 1997. They are taken directly from the audit by Linton, Shafer & Company, which was completed in early February.

A commercial organization budgets for a profit, so that moderate changes in income are more likely to cause a smaller profit than a deficit. SAS has not been budgeting for a profit, so we have no cushion to protect against income deficiencies. For that reason, we need to monitor income and expenses closely, and make adjustments when needed. That saved us from a large loss last year. The Executive Administrator and the Executive Committee will continue to monitor income and expenses closely. We have upgraded our accounting software and are hiring a part-time bookkeeper.

Marvin Margoshes, Treasurer

**Statements of Financial Position
December 31,**

	1997	1996
Assets		
Cash, unrestricted	\$541,015	\$574,780
Cash and cash equivalents, restricted	27,996	28,178
Short-term investments (approximating market value)	49,681	49,681
Accounts receivable (net of allowance of \$4,406 and \$4,611, respectively)	39,513	30,396
Prepaid taxes	7,000	-
Prepaid expenses	9,592	2,734
Total current assets	674,797	685,769
Property and equipment	37,701	31,852
Less: accumulated depreciation	(25,758)	(18,952)
Net property and equipment	11,943	12,900
Total Assets	\$686,740	.\$698,669

Liabilities and Net Assets	1997	1996
Accounts payable	\$ 70,985	\$ 57,961
Accrued liabilities	2,315	3,910
Income taxes payable	-	4,000
Deferred revenue	391,646	412,699
Total current liabilities	464,946	478,570
Net assets		
Unrestricted	193,798	191,921
Temporarily restricted	27,996	28,178
Total net assets	221,794	220,099
Total Liabilities and Net Assets	\$ 686,740	\$ 698,669

Statements of Activities and Changes in Net Assets
For the year ended December 31, 1997
(with comparative totals for 1996)

	Unrestricted	Temporarily Restricted	Totals 1997	Totals 1996
Revenues and other support				
Membership dues	\$ 207,364	\$ -	\$207,364	\$199,825
Publication sales and advertising	186,380	-	186,380	238,189
Subscription income	384,100	-	384,100	383,056
Membership education	10,547	-	10,547	17,745
FACSS contract	-	-	-	44,083
Interest income	33,384	1,318	34,702	30,900
Other	3,960	-	3,960	2,393
Net assets released from restrictions	1,500	(1,500)	-	-
Total revenues and other support	827,235	(182)	827,053	916,191
Expenses				
Program services				
Member services	100,921	-	100,921	84,043
FACSS contract	-	-	-	56,431
Publications	537,163	-	537,163	557,484
Membership education	8,602	-	8,602	29,920
Total program services	646,686	-	646,686	727,878
General and administrative	178,672	-	178,672	148,524
Total expenses	825,358	-	825,358	876,402
Change in net assets before provision for income taxes	1,877	(182)	1,695	39,789
Provision for income taxes	-	-	-	4,000
Change in net assets after provision for income taxes	1,877	(182)	1,695	35,789
Net assets, beginning	191,921	28,178	220,099	184,310
Net assets, ending	\$193,798	\$ 27,996	\$221,794	\$220,099

Executive Administrator's Report

Membership

Final 1997 Numbers

1997	3,023	Membership Breakdown	USA	2,617	International	406
Total New Members for 1997			Total Student Members 274			

Current 1998 Numbers

1998	1,826	Membership Breakdown	USA	1,576	International	250
Total New Members for 1998			176			

Subscriptions

1997	1,291	Subscriber Breakdown	USA	812	International	479
1998	946	Subscriber Breakdown	USA	638	International	308

General Comments

The office continues to function very well. We have been extremely busy since FACSS with inputting member and subscriber renewal notices, sending out second notices to both, preparing for the audit, doing mailings and many other tasks.

Membership and Subscribers

We are working on getting out third renewal notices. Overall we are ahead of last year's renewal rate and we hope this will be a positive sign for our 1998 numbers.

Exhibiting

We had a physical presence at two meetings since FACSS. We were in New Jersey for the EAS meeting and in Arizona for the Winter Plasma meeting. Both yielded a small handful of new members. As always, it is difficult to measure the kind of impact we have when we go to a show to exhibit. While we may not come home with a large number of new members, we expose the society to a large number of people who may join at a later time.

Finances

We have completely switched our accounting system from Champion to the more mainstream Peachtree software. It seems to be working out fine. We are still in the process of trying to find the appropriate person to fill the role of book-keeper on an outsourced basis. Thus far, we have not found anyone who could meet our needs at our price. There are several individuals who have come recommended to us that we are following up on. Hopefully someone will be in place by the end of March. In the meantime, Victor Hutcherson is keeping up with the books. The auditors completed their review of the SAS books in late January. A draft report will be presented at the meeting.

Personnel

All office reviews for staff were completed for 1997 and goals set for 1998.

Bonnie Saylor, Executive Administrator

Membership Education Coordinator's Report

The Society's educational obligation to its membership has been, and will continue to be, addressed through appropriate course offerings. Recently, however, scientific societies have, in general, gone into a somewhat more competitive mode in order to enhance their short-course registration numbers. More often than not, the competition has relatively strong financial support. At the same time, the overall response to course offerings appears to be a diminishing one. This conflicting combination often places the Society's educational efforts at a distinct disadvantage, particularly at the PittCon meetings. Consequently, the Society has elected not to offer courses at PittCon'98. Hence, the only course presented during this past winter session was the Biological Infrared Spectroscopy (BIRS) course at the annual meeting of the Biophysical Society. The number of registrants for this course totaled a disappointing six; i.e., forty percent of the number

registered the previous year at this meeting.

Four minicourses are presently scheduled for presentation at the FACSS '98 Meeting in Austin. These courses are described by their respective titles: "Putting Chemometrics to Work for You" (Charles Miller; DuPont), "Capillary Electrophoresis: Rapid and Efficient Analysis of Organics and Inorganics" (Vahid Majidi; LANL), "New Trends in Chemical Speciation of Environmental Samples" (Marc Lamoureux; Saint Marys University, Halifax), and "Hyperspectral IR and Raman Chemical Imaging" (Patrick Treado; Chemicon, Neil Lewis; NIH). Effective marketing of these courses continues to be a Society priority.

It is anticipated that a version of the BIRS course will be used to initiate the concept of a traveling ("on-the-road") SAS course. The originator of the present BIRS course is identifying those instructors that will constitute a viable teaching team having the interest and expertise necessary to work together, to develop, and to present the course.

The potential to efficiently enhance education services to members and to nonmembers, through on-line courses, has been assessed. Feasibility that SAS acquire and maintain this educational capability is under deliberation.

David Styris, Membership Education Coordinator

National SAS Committee Reports

Awards Committee Report

The awards Committee of the Society for Applied Spectroscopy recommends the following nominees for the 1998 SAS Awards:

Distinguished Service Award
Honorary Membership Award

Dr. Marvin Margoshes
Freeman Bentley, Walter Slavin

The nominees meet all qualifications for these awards and are outstanding candidates. It is a pleasure to present them to the Governing Board and to the Society.

Sincerely yours,

Jeanette Grasselli Brown, Chair

Nohora Vela, Chair-elect

Roy Koirtyohann, Past-chair

Constitution and Bylaws Committee Report

At its meeting in October 1997, the Governing Board approved the idea of incorporating an automatic annual increase in the Society dues by a level corresponding to the inflation rate of the previous year. Accordingly, the following revision to the by-laws is proposed.

ARTICLE VII – DUES

Section 7. **SETTING OF DUES.** Future dues will be set at the Governing Board Meeting prior to the Annual Meeting and will become effective on the first day of the fiscal year following the Annual Meeting. The percent increase should be comparable to the inflation rate of the previous year, as reflected in the Consumer Price Index or other suitable measure, with the dues amount rounded to the nearest dollar.

Prepared by *Robin L. Garrell, Chair*

Membership Committee Report

As reported at FACSS, despite gallant efforts to increase membership, for every new member acquired, several existing members are being lost, resulting in a net decrease in membership of 8% or so per year. During the coming year several new initiatives will be made including: mailings to all attendees to FACSS/97, the Winter Plasma and Biophysical Society meetings and a promotion to those listed in the ACS graduate research directory. Finally, the membership committee requests that members give some thought to this problem and share their ideas with the committee.

Jim Reeves, Chair

Nominating Committee Report

The SAS Nominating Committee would like to present for the executive committee's consideration the following candidates for nomination for next year's SAS president elect and treasurer:

President Elect

Rina Dukor
Vysis Inc.
3100 Woodcreek Drive
Downer Grove, IL 60515
Phone (630) 271-7193
E-mail: rkdukor@vysis.com

Vahid Majidi
Los Alamos National Laboratories
Chemical Science and Technology Division (CST-9)
MS E518
Los Alamos, New Mexico 87545
Phone (505) 667-0040
Fax (505) 665-5982
E-mail: majidi@lanl.gov

Treasurer

Mary Widmark Tungol
Hewlett-Packard Company
Inkjet Supplies Business Unit
MS711B
1040 NE Circle Blvd.
Corvallis, OR 97330-4200
Phone (541) 715-5521
Fax (541) 715-0568
E-mail: mwtungol@proaxis.com

Although there is currently only one nominee for treasurer, a second nominee will be selected and submitted for consideration by the executive committee at the Pittsburgh Conference. Attached are brief CV's for Dr. Majidi and Dr. Tungol. The CV's for Dr. Dukor and the second treasurer candidate will be supplied before the Pittsburgh Conference.

David Haaland, Chair

Publications Committee Report

1. At the 1997 FACSS meeting the Publications Committee met with an ad hoc committee on electronic publishing made up of Paul Farnsworth (chair), Jim Holcombe, Marvin Margoshes, and Joel Harris to discuss the possibility of publishing "Applied Spectroscopy" on-line. An agreement between the SAS and Catchword, a UK based company, has been signed, and the announcement of this new service will be made in an editorial in the February issue of "Applied Spectroscopy". The service will be provided to SAS members free for the first six months of 1998 and will provide access to all back issues from 1997.
2. Also under discussion at the 1997 FACSS meeting was the plan to develop a Spectroscopy Buyers' Guide for SAS members. The possibility of offering this service in a Web version was also discussed. This project is being headed by Ron Williams and is currently underway and an outline is being developed.
3. The Publications Committee continued to investigate the issue of offering discounted subscriptions to other journals for SAS members. Arrangements were worked out for 1998 just as they were for 1997 and include "Spectrochimica Acta B", "The Analyst" and "JAAS". A new addition for 1998 is "Analytical Communications" bringing the total to four. After repeated attempts to secure "Analytical Chemistry" without success, I was recently contacted by Mary Warner (m_warner@acs.org) of the ACS who stated that the issue was still under consideration.
4. A new chairman has been appointed for the Publications committee. The appointee is Dr. John Olesik of Ohio State University. I will serve as Past-Chair in 1998.

E. Neil Lewis, Chair

Tour Speaker Program Report

So far we have heard back from twenty two local sections with their preferences. Thanks to all those who responded so quickly. As Murphy would have predicted, there was lots of similarity in the first choice category. Where we could not provide the first choice, in most cases, we were able to provide the second choice and a few cases, the third choice. We also tried to keep a speaker in the same general region, where possible. But this pretty much took a back seat to the local section preferences. We have been working the matrix over the past week and here is what we have so far. Please look over the list. In some cases the sections have let us know of their meeting dates. Where there are firm dates, they are listed. In other cases, since we would like to schedule the speaker for consecutive engagements (again for the lowest airfare) suggested dates are in parentheses. Since I'll be at Pittcon, next week, if you have a problem or question, please leave me a voice mail message at 901-320-4068 as well as e-mail. Also please contact the speaker for your section ASAP, so we can take advantage of lower airfares. Here is the list, arranged by speaker.

M. BONNER DENTON mbdenton@U.Arizona.edu, 520-621-8246
 Cleveland - (4/15), Niagara Frontier - (4/13), Ohio Valley - (4/14), Rio Grande - (4/16)
SCOTT R. GOODE GOODE@psc.psc.sc.edu 803-777-2601
 Baltimore-Washington - (4/15), Detroit - (4/13), Indiana - (4/14)
ROBERTS. HOUK rshouk@iastate.edu 515-294-9462
 SSC - Montreal - 5/12, SSC - Ottawa - 5/13, SSC - Toronto - 5/14
MARK LAMOUREUX SSC Exchange Speaker Southern California - May 1-3
ROBERT MICHEL rgmichel@nucleus.chem.uconn.edu 860-486-3143
 SSC - Vancouver
PETER L. RINALDI pir@merlin.chemistry.uakron.edu 330-972-5990
 Kansas City- (4/14), Mid-Michigan - (4/15)
JAMES RYDZAK James.Rydzak@colpal.com 201-631-9085
 Delaware Valley - 4/13, Minnesota - (4/15), Penn-York- (4/14), St Louis - (4/16)
CARL G. ZIMBA zimba@nist.gov 301-975-6881
 Chicago- (4/14), Reading - (4/15)

Paul Bourassa, Chair

Strock Award Committee Report

The Strock Award Committee for 1997, comprised of myself as Chair, Christine Evans (University of Michigan Chemistry Department) and Vasilis Gregoriou (of Polaroid and the New England Section of SAS), selected Professor Therese M. Cotton of the Department of Chemistry at Iowa State University as the 1997 Lester Strock Awardee. Dr. Cotton's work using surface enhanced Raman spectroscopy (SERS) on biological molecules was the research cited for her award, along with a series of 8 publications in this area--including the first two of which were published in the SAS's own journal, Applied Spectroscopy.

In site of Dr. Cotton's having let her SAS membership for 1997 lapse, the New England section was willing to sponsor and pay for her membership so that the award could officially be presented to her. Dr. Cotton received her award at the 1997 FACSS meeting in Providence in October. Further details about Dr. Cotton's career and other biographical details are available in the committee's report to you dated August 18, 1997.

The 1998 committee, to be chaired by Dr. Evans, will begin its work in earnest later this spring to identify this year's Strock awardee.

Respectfully submitted,

Charles J. Wurrey, Chair



Society for Applied Spectroscopy MEMBERSHIP APPLICATION/INFORMATION

I'm interested in the Society for Applied Spectroscopy. I understand my membership includes a subscription to *Applied Spectroscopy*. Please.....

- Enter my membership in SAS and bill me.
- Charge my credit card for membership in SAS.
- Enter my membership in SAS. My check made payable to the Society for Applied Spectroscopy is enclosed.
- Send me more information regarding membership in SAS.

Name _____

Home Address _____

_____ Zip _____

Company _____

Business Address _____

_____ Zip _____

Preferred mailing address: Home Business

(H) Phone: _____ Fax: _____

(W) Phone: _____ Fax: _____

E-mail _____

Areas of interest _____

Membership Fee (includes subscription to *Applied Spectroscopy*)

- New Renewal Student-USA \$25.00*
- Regular-USA \$75.00 Student-Canada \$40.00*
- Regular-Canada \$90.00 Student-Outside USA \$65.00*
- Regular-Outside USA \$115.00 *(Send copy of current student ID.)
- Corporate Sponsor-Send me information.

Society for Applied Spectroscopy
 201B Broadway St.
 Frederick, MD 21701-6501
 Phone: (301) 694-8122 Fax: (301) 694-6860
 E-mail: sasoffice@aol.com

Credit Card VISA MasterCard Amer. Exp.

Card # _____

Expiration Date _____

Signature _____

Date _____

All forms received after June 1 are entered for the following calendar year.

What is Spectroscopy? ... A Letter to Paul

By James Holcombe

A few months ago I received an email from an 8th grader named "Paul" who was going to write a report on "spectroscopy". He wrote asking for a book to look up this topic. He found that there were "too many books" and that they were all "too complicated to understand". Not having a good source, I sent him the following. (It is not a "pearl", but only a river rock that was taking up space on my disk. It took 30 minutes to write and I figure this baby's worth ca. \$500. I've always wanted to send it to someone in addition to this eighth grader... so you all are the lucky recipients.

Dear Paul,

You certainly tackled a broad topic area and it is not surprising that you encountered too much information and much of it in a depth that is greater than you can understand as an eighth grader. Unfortunately, I can't think of a good source that would be written at your level that would be of assistance, but an encyclopedia might be as good as any for getting started. Let me give you a brief introduction and hope that will get you going.

Broadly defined spectroscopy involves the interaction of radiation (or "light") and matter. We use spectroscopy to get information about the substance being studied and, in particular, we can use spectroscopy to tell us what the sample is and how much we have. In short, we can use it for qualitative analysis and quantitative analysis. The "light" we use can cover the entire "electromagnetic" spectrum of which visible light is only a small part. If we do "x-ray spectroscopy", then we are looking at how x-rays (which are very high energy radiation) interact with matter. For example, x-rays taken in a doctor's office is a case where bones absorb the x-rays more strongly than the soft tissues so we see a "shadow" when we pass x-rays through someone's leg and onto a piece

of film, which is "exposed" just like camera film is exposed by visible light. Infrared (IR) radiation is lower energy radiation and molecules can absorb this light. In the same way that "visible light" has a bunch of different colors (we talk about the wavelength of the radiation rather than colors), IR light includes a number of different wavelengths of light. Molecules are made up by atoms connected by bonds... sort of like balls connected by springs to one another. If the right frequency or color of radiation shines on a sample, the balls and springs (molecules) absorb the light and vibrate more than they did before. In science we'd say that the energy of the photons (light) is absorbed by the molecule. These excited, vibrating molecules can then stop vibrating so vigorously and give up their energy to neighboring molecules in the form of "heat". So, when you sit in front of a fireplace, the molecules in your body absorb the fireplace's infrared radiation and you warm up. We could also use this information to do spectroscopy. For example, if I put a sample containing molecules in a beam of IR light and determined what particular wavelengths (or colors) are absorbed from this IR source, I can determine what molecules must be in my sample. If I can determine how much of the light is absorbed, then I can determine quantitatively how much of that particular molecule is in the sample.

The same principles apply to visible light, although the energy here is larger than in the IR and less than x-rays. Unlike IR, absorption of visible light causes the electrons that are around the atoms or molecules to get "excited". This excitation of the electrons by particular wavelengths is what is responsible for the color that certain objects have. When white light shines on an apple, the apple preferentially absorbs most of the light EXCEPT red, so the apple appears red. A green solution is green because the molecules absorb red light, and so on. Once again, by knowing the exact wavelengths that are absorbed we can get information about the composition of an unknown solution.

If I take a solution and spray it into a

high temperature source, like a flame, there may be enough heat to break the bonds in the molecules and make atoms. These atoms (rather than the molecules) also can absorb at unique wavelengths. This technique is called "atomic absorption spectroscopy". It is the analytical technique that is used, for example, to determine the amount of mercury in contaminated water.

In some cases, scientists do "emission spectroscopy". In this case we heat up the sample to very high temperatures and, for example, cause the electrons in the atoms or molecules to become excited. When these excited electrons in the atoms or molecules get unexcited ("relax"), they emit light. This is where the light from a candle comes from. If you have a gas stove and water boils over from something cooking on the stove, you will often see the flame turn very yellow. This is generally from sodium atoms emitting in the flame. (Sodium comes from impurities in the water or from salt—which is sodium chloride—that was added by the cook.) Sodium is an atom that easily emits light in the yellow region of the spectrum. (In fact, it specifically emits light at a wavelength of 589 nanometers, which is in the yellow region of the spectrum.) So with the right type of equipment, we can isolate the 589 nanometer radiation and determine how "bright" the sodium light is and determine how much sodium was in the water. This technique is referred to as "atomic emission spectroscopy".

Some of these techniques are extremely sensitive, which means they can detect extremely small amounts of material. For example, some of the atomic spectroscopy techniques could detect sodium if you were to dissolve one grain of salt (sodium chloride) in a backyard swimming pool!

I hope that this helps and does not add to your confusion.

James A. Holcombe
Professor
University of Texas at Austin

Presentation of the SAS Honorary Membership Award to Bourdon Scribner

Since he was unable to attend the SAS award reception at the 1997 FACSS meeting, a contingent of SAS representatives decided to present Bordon Scribner with his Honorary Membership Award in person at his home in Annapolis, Maryland in late December. The group included SAS treasurer Marvin Margoshes and his wife, SAS past-president Nancy Miller-Ihli, and SAS newsletter editor Mike Epstein. Marvin and Miriam flew down from their home in New York and we were also joined by Bourdon's wife Sally.

In the photos at the right: Bourdon proudly holds the Honorary Membership scroll (top); Marvin and Miriam Margoshes, and Bourdon and Sally Scribner (middle); Bourdon and Nancy Miller-Ihli share a laugh (bottom).

Bourdon was honored for his many accomplishments in the field of emission spectroscopy. A protégé of William F. Meggers, Bourdon is our living link to the history of analytical emission spectroscopy ... much of which he was responsible for making.



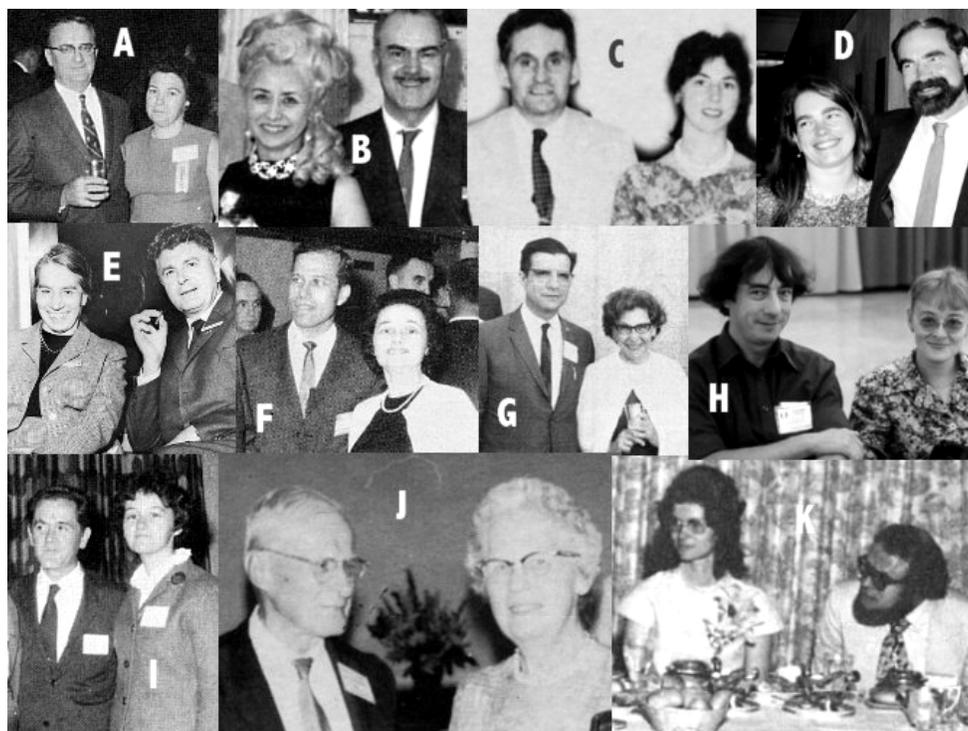
Answers to the December 1997 SAS newsletter quiz

- A – Jeannette Grasselli Brown (president 70)
- B – Herman A. Szymanski (president 67)
- C – James Winefordner (president 83)
- D – Mike Epstein (treasurer 84-86, newsletter editor 96-)
- E – Bill Fateley (journal editor 75-93)
- F – John Dean (newsletter editor 84-95)
- G – James D. Winefordner (president 83)
- H – William J. Poehlman (1st SAS president 57-59)
- I – Mike Parsons (president 79)



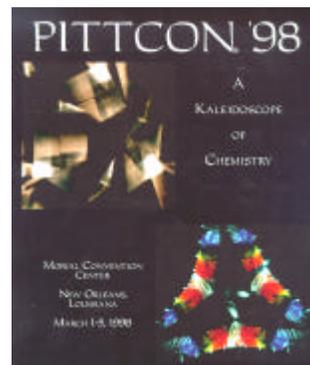
This issue's SAS quiz

Identify the FAMOUS SPECTROSCOPIST COUPLES shown in the photograph at the right. A last name for each couple is sufficient. The submission with the most correct answers will receive a free SAS T-shirt and recognition (if desired) in the next SAS newsletter. Furthermore, the first submission with all 11 couples correct will receive a free, one year SAS membership, compliments of the SAS SPECTRUM newsletter. Send your answers to the SAS newsletter by email or postal address on the front page of this issue.



A Pittcon '98 Retrospective

New Orleans is always my favorite location for the Pittsburgh Conference. This year, as one among some 28,115 attendees walking the seven mile long path to visit 1,217 companies exhibiting on the convention floor, I came across a few SAS faces (shown below).



SAS Corporate Sponsors on the Convention Floor (left to right, proceeding downward):

(1st row) Geof Coleman, **Thermo Jarrell Ash**; Kathy Pappas, **Leeman Labs**; Ross Wiltse, **Perkin Elmer** and Analyst 800 AA spectrometer; (2nd row) Stuart Georgitis, **LECO**, and the new Time-of-Flight ICP-MS; **Hinds Instruments**; Ian Shuttler and Jack Kerber of **Perkin Elmer**; (3rd row) Mark Cruickshank, Arran Bibby and Doug Martin of **Graseby/Specac** with the OMNI multipurpose liquid transmission cells for IR analysis; Michael Trivisonno, **Varian Optical Spectroscopy Instruments** and the CARY 50 and SpectrAA 220FS; **Hamamatsu Corp** (above); **Solutions Plus** (below); (4th row) **Axiom Instruments**; **Nicolet Instruments** showing their Avatar E.S.P. and Magna-IR E.S.P. systems.





From the *SAS Spectrum* Newsletter Editor's Desk:

First, a few announcements. Please note that my electronic mail address has changed to epstein@hood.edu. My other email accounts will disappear shortly. The newsletter is available on the SAS WWW site at <http://www.s-a-s.org/epstein/sas.html> as a PDF file. Download time with a 28.8 modem is around a half-hour for the low res edition. For high res and color photos you will need a high speed connection ... it's almost 20 megabytes. You will also need the Adobe Acrobat Reader Version 3.0 or above, which is available free from the Adobe site at <http://www.adobe.com>. And speaking of photos, I'll be glad to email high-resolution copies of color photos in this edition to anyone who wishes them. The photos in the collages taken at Pittcon have been reduced in resolution so my computer could handle the graphics.

Those of you who stopped by the SAS booth at Pittcon might have noticed that SAS has an archive CD-ROM containing a large number of photographs from 1958 through the present, representing 4 decades of SAS activities. More copies of the CD-ROM will be available at the FACSS meeting in Austin, TX.

At that meeting, SAS has a number of great activities planned to celebrate the Society's 40th anniversary. See the meeting minutes on pages 14 and 15 for more details. Furthermore, SAS is offering a number of mini-courses at an incredible price (\$50 to \$75 for members) on several fascinating topics:

- Capillary Electrophoresis: Rapid and Efficient Analysis of Organic and Inorganic Compounds
- IR and Raman Chemical Imaging
- Putting Chemometrics to Work for You
- Teaching Spectroscopy and Spectroscopy Oriented Technologies Using the Web (WWW)

Contact the SAS office for more information or visit the SAS web site at http://s-a-s.org/short_course/index.html



Finally, I'm always open to suggestions for new features in the newsletter, as well as additions to old features. I would welcome further contributions to the *SPECTROSCOPIST PROFILE* series or in any other area. You may have noticed a lack of molecular spectroscopists in that category, which is simply the result of my being an atomic spectroscopist. I would love to profile prominent scientists in the molecular spectroscopy area, but I don't have the contacts and information to easily do that. So I would strongly encourage those interested in seeing profiles of molecular spectroscopists in the *SAS SPECTRUM* to contact me and then take it upon themselves to organize a group to profile an individual. Marvin Margoshes did exactly that for his outstanding and moving profile of Professor Fassel in this issue.

Mike Epstein

The following article appeared in the Dec 1961 issue of Arcs & Sparks, published by the Ultra Carbon Corporation. Dr. Fassel was selected as "Spectroscopist of the Month" for that issue.

SELDOM a symposium goes by but we hear the phrase, "Fassel at Iowa State". The experience of V. A. Fassel and his concern with the progress of Spectrography is most evident in the following biography . . . one which gives us a pardonable measure of pride in this Spectroscopist of the Month feature.

Born, raised and achieving his success in Missouri and Iowa, Velmer is an outstanding example of the scientific progress of our great Mid-West. Born April 26, 1919 in Frohna, Missouri, he spent his childhood in this state and graduated in 1941 with honors in chemistry from Missouri State College where he majored in physics and chemistry. He gained his Ph.D at Iowa State College, Ames, Iowa in 1947 and has, since then, been unwaveringly loyal to his school and his chosen field.

His rise at Iowa State was steady, and consistently sprinkled with outside activities. Immediately upon graduation he accepted a position as Graduate Assistant in the Department of Chemistry at Iowa State University. Upon the advent of World War II, "V. A." organized, at the school, an analytical spectroscopy laboratory for the Manhattan Project. The purpose of this lab was to provide spectrographic analyses for the uranium production facilities. After the war, this lab became the Spectrochemistry Section of the Ames Laboratory and Institute for Atomic Research. From 1947 to 1956, Velmer climbed the ladder within the University from positions of Associate Chemist, Ames Laboratory, and Assistant Professor, Department of Chemistry to that of the former, as well as the new honor of Associate Professor in the Chemistry Department. From 1956 to date, V. A. Fassel has become Senior Scientist of the Ames Laboratory and Professor, Department of Chemistry at I.S.U.

While titles may be confusing, certainly the character of the work is most specific. In the last three positions mentioned, the job involves the direc-

tion of the Spectrochemistry Section of the Ames Lab. This section is engaged in three major activities - of which (b) and (c) predominate: (a) spectroscopic service analyses - approximately 10,000 per year; (b) development of spectroscopic methods of analysis for specific AEC purposes; and (c) research in spectroscopy, including training of M.S. and Ph.D candidates. The areas of investigation include conventional analytical emission spectroscopy, fluorescence spectroscopy in optical and X-Ray region, infrared spectroscopy and molecular structure, reactions in high current arc discharges, analytical applications of electrical discharges in rare gases and analytical chemistry of gases in metal. Pioneer research has been carried out on spectroscopic techniques for the determination of gases in metals and on the analytical spectroscopy of the rare earth group of elements.

While such an imposing array of work would be enough to keep any major lab running full tilt, it is but a part of the tremendous contribution V. A. Fassel is making to our field. For instance, his society memberships, which he keeps quite active, include Phi Lambda Upsilon - Chemistry scholastic honorary; Sigma Xi - Research Honorary; American Chemical Society; American Institute of Physics; Optical Society of America; and the Iowa Academy of Science. Some further degree of his involvement can best be judged by the following honors:

- USA Editor of Spectrochimica Acta, international research journal in spectroscopy.
- USA representative on Commission on Optical Data International Union of Pure and Applied Chemistry.
- Technical Advisor, 2nd International Conference, Peaceful Uses of Atomic Energy, Geneva, Switzerland, 1958.
- Selected for National Lectureship, Society for Applied Spectroscopy, 1960-61.
- Chairman, Panel on Analytical Methods, Materials Advisory Board, National Academy of Sciences.

The scope of these activities and the quality of his contributions have brought additional recognitions. He was



cited for the best presentation of a scientific paper, Sixtieth Annual Meeting, American Society for Testing Materials, June 1957. His work has earned him listings in: American Men of Science; Leaders in American Science, Who's Who in Education, and Midwest Supplement of "Who's Who". World-wide recognition has generated a constant demand for his works, and between 1955 and 1961, he has been an invited lecturer no less than twenty-nine times in various symposia in the United States and Europe.

In utter frankness, and with true scientific objectivity, Velmer readily admits that being past forty has seriously limited his proclivity to mountain-climbing - one of his favorite hobbies. Consequently, it seems, he has devoted more time to his golf game where, as he states, he shoots in the high 70's and low 80's and when laws of probability all are acting favorably - even makes par! (Work out your handicaps from here, friends, before you visit him at Ames.) Other preferred ways of relaxing are stereo-photography, square and round dancing. Both he and his lovely wife are active in the affairs of the Collegiate Presbyterian Church where, he states, he graduated upward from Sunday School Teacher, to Deacon, Elder, and now, Clerk of Session. And, we understand from his favorite service club, he's a real, lively Lion. A great deal more could be written about V. A. Fassel - the man and his accomplishments - but from even this digest it can be understood why we happily nominate him "Spectroscopist of the Month".



With Drs. Nordmeyer & Birks
1961



With Dr. & Mrs. Lippincott and
Bourdon Scribner, 1961



Left to right—Dr. V.A. Fassel receives the 1971 Anachem Award from R. B. Luers, Award Chairman.



With Rod Skogerboe



HASLER AWARD RECIPIENT



Left to Right - C.J. Leistner, Ultra Carbon, F.M. Evens, Continental Oil, Edward DeKalb and V.A. Fassel, both Iowa State U., Mrs. Fassel, W.B. Barnett, Perkin-Elmer, C.H. Anderson, Applied Research Lab.



Pittsburgh Conference, March 1967



17th Pittsburgh Conference
1966

The charming lady getting all the attention is Mrs. William T. Tiffin. Prof. Tiffin, of the University of Florida, smiling through it all, managed to get his head in the picture (over her left shoulder). Bourdon Scribner (left), R. E. Michaelis, both of National Bureau of Standards; and Prof. V. A. Fassel (far right), Iowa State University, are enjoying it all.



1969
Pittsburgh
Spectroscopy
Award

Thank Heaven for little girls like Lucinda Owen. Proud Papa is Louis E. Owen (right), Tomorrow Enterprises. That's Professor Fassel of Iowa State University on the left. Mr. Swalen (left) Chairman of the Spectroscopy Society of Pittsburgh presented the award to Dr. Fassel.



At the wedding of Bourdon and Sally Scribner

From the pages of
Arcs and Sparks,
published by the
Ultra Carbon
Corporation and
from the SAS
Archives. Photos
by Carl Leistner.



Dr. V. A. Fassel, Ames Laboratory, Iowa State University, Dr. M. S. Webb, UKAEA, Harwell, England, Mrs. H. H. Ross and Dr. H. H. Ross, ORNL.



PROFESSOR FASSEL of Iowa State (far right) served on the Advisory Committee. Mrs. Fassel (far left) also made the trip. The couple next to Mrs. Fassel is Dr. and Mrs. Rosser. The couple (center, right) is Dr. and Mrs. Victor Mossotti, of Iowa State University.