

2015

SOCIETY FOR APPLIED SPECTROSCOPY

OFFICER, GOVERNING BOARD MEMBER PROFILES, AND PROPOSED
CONSTITUTIONAL CHANGES

*VOTING WILL TAKE PLACE IN JULY AND AUGUST AND IS OPEN TO SAS MEMBERS
CHECK YOUR EMAIL FOR ELECTRONIC VOTING INSTRUCTIONS*



**PRESIDENT - ELECT
NANCY JESTEL**

Nancy L. Jestel is a chief scientist with SABIC in Selkirk, NY, USA. Dr. Jestel has Bachelor of Business Administration and Bachelor of Science in Chemistry degrees from the University of Massachusetts at Amherst and a PhD from the University of Michigan jointly in Chemistry (under Prof. Michael Morris) and Biological Materials Science (under Prof. William J. O'Brien). After graduate school, she joined General Electric's Plastics business in their Technical Leadership Program, working at several sites and becoming a certified Design-for-Six Sigma (DFSS) Black Belt. After the sale of the business to SABIC, she continued serving as the Global Spectroscopy Functional Group Leader, creating a community from spectroscopists at 14 sites spanning 15 time zones. She was recognized with both GE's Women in Technology and Richard Chang Analytical Awards for significant technology contributions to the business. Her work focuses on innovative analytical method development to support the business' new chemistry and process initiatives. Her areas of expertise include vibrational spectroscopy, statistics and chemometrics, and process analytical.

Dr. Jestel is active in professional and community activities. She currently serves as an SAS Governing Board delegate and has served on a number of committees previously. She frequently organizes and chairs conference sessions, presents at conferences, often as an invited speaker, and teaches a short course at Pittcon on the use of robust design and design of experiment techniques to reduce variance in analytical test methods. She is the author of 2 book chapters on the use of Raman spectroscopy in process monitoring and control. She served as a consultant to a 4-year US National Science Foundation study on the effects of teacher training on the quality of K – 12 science education quality. In the community, Dr. Jestel also teaches Junior Achievement (workforce readiness, entrepreneurship and financial literacy lessons) to elementary school students each year and was a founding board member of Guildershaven Inc., a not-for-profit focused on animal care. She was part of the all-volunteer team that developed it from an idea and a few bake-sales into a nearly \$100K charity, serving on its board for almost 10 years and as its treasurer for three years.

Response to Questions:

Why should you be elected President?

I believe strongly in professional service. Being a member of SAS has been valuable and important to me and I would like the opportunity to give back to the organization. There are many ways to serve, but this position represents one of the most committed. I believe that I should use my strong leadership, strategic planning, and fiscal management skills to help strengthen the Society and move it forward productively and positively.

What is the Society doing well to support the needs of the community we serve and how can we continue to do this?

The activities of any organization must be aligned with its mission. The Society has a strong, clear mission statement:

To advance and disseminate knowledge and information concerning the art and science of spectroscopy, and other allied sciences,

To advance the professional standing and growth of the Society and its members,

To coordinate cooperative endeavors of its individual members and sections, and

To promote and maintain a close bond among its members.

As with any organization, certain activities often fulfill more than one aspect of its mission. What made me join the Society as a graduate student in the mid-1990's were my positive experiences interacting with its members at FACSS (now SciX) meetings and the professional nourishment I received from attending the annual meeting and reading the *Applied Spectroscopy* journal. As a student member, I appreciated being welcomed and included and the openness of members to "talk shop", support each other's growth, and be a community. The journal helped teach me my craft and provided many ideas that I used as springboards to develop in new areas. I broadened my horizons as I learned about the newest award winners and joined in celebrating their inspiring accomplishments. I leveraged the membership directory to contact experts and always received gracious help. All of these aspects turned me from a student member to a professional one, and have kept me a member since. I found further professional growth through my service on different committees and as a Governing Board delegate. These personally-experienced examples show me that the Society has been successful in fulfilling aspects of its mission, and I know others have similar positive experiences. If the Society continues to provide educational, innovative, and stimulating ideas through the journal, recognizes its member's accomplishments through awards, and cultivates an open, sharing atmosphere at its gatherings, SAS will have value and relevance for its members.

Where, in your opinion, is the Society failing to meet the needs of the community we serve and how do you propose to address this?

A mission statement also serves as a ruler to judge an organization's performance and identify areas where it can improve. I believe that SAS could significantly improve the mechanisms used to fulfill its mission. The world has changed dramatically since SAS was founded in 1958 and continues to do so rapidly. Every organization must adapt to the new reality around it by learning to do its core work in new ways - or it risks becoming irrelevant. As a member, I saw most of SAS activities as belonging to one of two general categories: (1) related to the journal or (2) related to gatherings (conferences, student night, section meetings). Unfortunately for me, there were quite a

few years when I was unable to attend conferences, particularly the FACSS (SciX) annual meeting, between family obligations and corporate travel restrictions. I missed interacting with my fellow spectroscopists! I potentially could have filled that gap through my thriving local section, New York. Sadly, my local section's meetings are not very local to me, usually a 3-hour drive each way, and thus are not practical. I did learn from reading the journal, but it just wasn't the same. Corporate restrictions on Facebook and LinkedIn postings blocked even those recently-introduced avenues. During those years, I felt effectively cut off from much of the purported value of my membership and certainly did not feel my needs were being met. I know I am not alone in this experience. Delivering services predicated on an ability to travel is certain to leave many members or potential members underserved. It is essential that the Society identify ways to be fulfilling its mission every hour, every day, everywhere so that in-person meetings become another way that SAS delivers, rather than the main example. This is not about webinars, Twitter accounts, and websites. It is about establishing a philosophy and long-term strategy on how to deliver value to members in multi-faceted ways.

In order for an organization to undertake activities to fulfill its mission, it must have resources – usually cash and people with time. When I started serving as a Governing Board delegate, I took my first good, long look at the Society's financial statements and it was eye-opening. I was concerned by the use of substantial amounts of savings year after year for what appeared to be essentially routine operations and to see overhead costs on the same order of magnitude as dues income. (The Society receives more income from publishing the journal than from dues, but the publishing industry is in transition and income from it is not as certain as it once was.) The purpose of savings is to see you through tough times or to invest in things that will improve your situation for the future, not pay your regular bills. I am by nature a saver not a spender so those aspects bothered me deeply, because unchecked, they could put the future fiscal health of SAS at risk and impede SAS' ability to conduct its business. That view is my opinion. Not everyone shares the depth of my concern. Strong steps to improve the situation were taken last year, but the problems are long-term and it will take a while to determine if they were strong enough. Still, the mere existence of my concerns suggests another area for improvement. Fiscal transparency and ample open discussion are good ways to ensure expenditures are aligned with income and with activities to fulfill our mission.

What initiatives do you propose to pursue, and why, if elected?

I am a strong proponent of financial and operational transparency. Every member should be able to easily see what expenses are involved in running the Society and in providing each service to fulfill SAS's mission, where SAS gets the money to pay for it all, and what future financial obligations exist. The information must be presented in an accessible format, not as dry financial statements. The demographic profile of the society should be clear (x% industrial, academic, student or y% 0 – 5 years into career, 5 – 10 years, nearing retirement, etc.). We should know what types of members are using which services and whether expenditures are reasonably distributed for the different groups. Armed with this kind of information, members will be prepared to participate in an animated dialogue on whether reality matches up with their vision for their society and what short- and long-term changes are required to achieve that. Using that feedback should enable SAS to be more certain about whether proposed changes are worth their cost, build in fiscal responsibility, and establish the framework of a strategic plan to be realized by many Society presidents, not just the next one.

As I said in a previous question, I also believe that SAS needs to establish a strategy and philosophy about delivering value to members in many forms. This cannot be accomplished in a single year. I propose identifying and investigating the best practices of other professional organizations. My husband is a member of the Project Management Institute (PMI) and I'm always impressed by how they operate. They have broad mixture of free and paid online training materials, lectures, publications, host local meetings, professional development days, and courses, run national and international conferences, and more. Of course, with 2.9 million members, they have

more options, but it is still food for thought. This investigation and the strategy development to follow must make a special effort to involve student and new professional members. I also endorse continuing to revitalize and improve the local and technical sections as part of this issue.

Why is membership in the Society important to you and what would you say to a potential new member to encourage them to join?

I never placed a lot of stock in the networking that career advice books tell you to do, so it came as a surprise to me that the network I developed through SAS was really important to me. I changed my mind because the people I met served as my role models and mentors even if they didn't know it! Being a member of SAS lets you share in the rich fellowship of light and help it grow, and is well worth the small price of admission.



**PRESIDENT - ELECT
GREG KLUNDER**

Greg Klunder received a B.S. in Chemistry from Virginia Tech in 1985 and a Ph.D. in Analytical Chemistry in 1990 from North Carolina State University. After a few years as a postdoctoral scientist at Lawrence Berkeley Laboratory and Lawrence Livermore National Laboratory, he took a staff scientist position at LLNL in the Forensic Science Center where he has been since 1995 working various areas of analytical chemistry with a primary focus on spectroscopy. Over his career, he has been involved in research on many different areas of spectroscopy and analytical chemistry including: flame atomic spectroscopy, photothermal spectroscopy, laser-induced fluorescence, laser ablation mass spectrometry, near-infrared spectroscopy, Raman spectroscopy, capillary electrophoresis, and fiber optic sensors.

Greg first joined SAS as a graduate student member from 1986-1990 and has been a regular member since 1991. He has served two terms on the SAS Governing Board starting in 2008 and 2011. He is currently the Governing Board Chair for FACSS, which SAS is one of the founding organizations.

1. Why should I be elected President?

I first joined SAS as a graduate student in 1986 and have served on the Governing Board which has provided me with a strong familiarity to many aspects of the Society. I have been Program Chair and General Chair for the FACSS Conference, the annual meeting of SAS, and am currently the Governing Board Chair for FACSS. Through these leadership positions, I have gained a lot of experience working with organizations and members of the scientific community.

2. What is the Society doing well to support the needs of the community we serve and how can we continue to do this?

As scientists, we need to have ways to share our accomplishments with the greater community, develop interactions that foster new ideas, and stay on top of the latest scientific developments. SciX, presented by FACSS, is the annual meeting of SAS and provides an excellent venue for the presentation and exchange of scientific information. At SciX, student member posters are highlighted at the opening mixer, there is a special member's only networking event, an SAS evening wine and cheese gathering, and SAS sponsored scientific sessions. In addition, SAS also sponsors other events at PittCon to bring scientists together to exchange ideas in relaxed settings. The journal, *Applied Spectroscopy*, is a world-class publication where members can publish their work.

In order for the Society to continue meeting these and future needs of the community, we need to continue to recruit and engage new volunteers. To this end, the current efforts are exemplary and other organizations are taking note as to how they can follow our lead. Continuing these efforts is critical for the future of the Society.

3. Where, in your opinion, is the Society failing to meet the needs of the community we serve and how do you propose to address this?

SAS is successful on many fronts, yet we do need to keep an eye toward ever improving what we can provide to the community. As part of a new age, we need to be very cognizant of how we can provide scientific information to the community. The website improvements have been a big step but only for those who know to visit it. We need to find ways to reach out other non-members and draw them in. How can we do this in the digital age? One of the key issues is that we need to engage people with content. The content can come in different formats such as manuscripts, videos, databases, etc. For example, scientific videos are extremely popular on video websites and are great ways to share lectures, short courses, or webinars. The journal is available on-line but are there additional ways we can provide the scientific community with a forum to share their work that maintains the quality standards we have established. I plan to investigate ways that we can expand our scientific presences by providing more generally searchable content for the scientific community.

4. What initiatives do you propose to pursue, and why, if elected?

Part of the mission of the Society is to advance and disseminate knowledge and information about spectroscopy. One of the ways we can do this is to increase our presence on the web, internationally and at other scientific meetings. Through the Journal and annual meeting, we have two very strong venues to disseminate scientific advances. In order to reach more people, increasing the number of members will increase the readership and increasing the attendance at the conference will engage more scientists in the valuable networking opportunities. Thus, one area that I will pursue is a campaign to grow the society based on a grass roots effort and encouraging members to help spread the word. Our members are internationally recognized and have presence at many other meetings where the attendees could benefit from the Society. By tapping into our existing resources, we could reach out to large targeted audiences with minimal financial investments. The paybacks will in turn provide benefits to existing members as can be seen with the attendance at SciX and our access to surplus funds.

5. Why is membership in the Society important to you and what would you say to a potential new member to encourage them to join?

Over the course of a career, everyone experiences highs that they want to tell the world about and lows where they can use a pickup through conversations with colleagues. Being a member of SAS provides a network of

colleagues, many who will become good friends, that you can reach out to and share experiences and get new ideas which are not present in the daily work environment. SAS does a particularly good job encouraging interactions with member events at conferences. In addition, SAS is a great deal. For a low cost membership, members receive a subscription to *Applied Spectroscopy* (print and online), registration discount at SciX, members' only events, access to the membership directory, and other benefits.

The voting members of the SAS Governing Board include 10 members elected by the membership-at-large. There are currently five (5) 2-year positions open on the board. The candidates are as follows:



LAURA BUSH

Since November 2010, Laura Bush has been the editorial director of *Spectroscopy* and *LCGC*, two peer-reviewed publications that serve spectroscopists and analytical chemists working in a range of fields, such as environmental analysis, medical research, pharmaceuticals, and food safety. Previously, Laura spent five years as the editor in chief of *BioPharm International*, and almost three years as managing editor of *Pharmaceutical Technology*.

In addition to her day-to-day work in print and digital media, Laura has moderated numerous conferences, conference keynotes, roundtables, and technical sessions. In her role at *BioPharm International*, she also served as a member of the advisory boards for the Interphex conference and the Biotechnology Industry Organization (BIO) international convention. She was a 2010 recipient of the Healthcare Businesswomen's Association Rising Star award.

Before moving into technical publishing, Ms. Bush worked in the pharmaceutical industry as a project manager for the Asia Pacific Latin America region of Pharmacia Corporation, which is now part of Pfizer. A graduate of McGill University in Montreal, Canada, Laura spent the first part of her career as a legal translator for an international law firm in Madrid, Spain, and she holds a Masters degree in Spanish translation from Rutgers University, the State University of New Jersey.

What are the challenges facing SAS and how can we meet those challenges?

The single most important challenge facing SAS today is to ensure the financial stability of the society. The other main challenge is to determine a vision for the future.

Hard work has been done in the last several years by both the leadership and dedicated members to begin to address these concerns. On the financial side, a careful assessment of the organization's financial position has been made. In addition, a 2018 Strategic Fund has been established and a funding drive has been proposed. We should pursue that funding drive and make it a priority.

In terms of the vision for the future, progress is being made on that front as well. President Diane Parry kicked off the SAS 2020 initiative with a members' meeting at Pittcon 2015 and a member survey was recently completed. It will, of course, take more time to fully develop that vision, but we are now on the right track and should continue that course.

In addition, from my perspective, ensuring a solid future for the society will include a number of elements:

- **Journal:** Continue the efforts of the current editorial team that include examining costs, particularly printing, paper, and postage, along with considering options for moving more subscribers to a digital format; and continuing to pursue the publication of open-access focal point review articles to ensure the strength of the journal's impact factor.
- **Regional, technical, and student sections:** Take further steps to re-energize and strengthen the 27 regional, 13 technical, and 7 student sections, and encourage the formation of new student sections in particular. Continue to foster connections with the SAS UK regional section and the society's presence in Asia.
- **Alliances with similar organizations:** Pursue alliances, as well as best practices, with similar non-profit scientific societies around the globe.
- **Website, newsletter, and social media:** Continue to strengthen all of these communication vehicles, in particular using them to share news of the regional, technical, and student sections, to foster a sense of connectedness among all members and sections.

In summary, steps to ensure the future vision and financial footing of the society are already well underway, thanks to the excellent efforts of both the leadership and members. It is now up to all of us, whether executives, governing board members, or volunteer members, to carry that work forward to its completion.



RINA DUKOR

Rina Dukor is the President of BioTools, a company she co-founded with Professor Laurence A. Nafie in 2000. Rina received a Ph.D. in physical chemistry from the University of Illinois, Chicago (UIC) in 1991 under the supervision of Professor Timothy A. Keiderling. Her thesis explored the new field of Vibrational Circular Dichroism (VCD) of biological molecules. Upon graduation, Rina joined Amoco (currently Abbott) where she established a spectroscopy laboratory focused on proteins and nucleic acids. While in industry, she pioneered the introduction of aqueous infrared spectroscopy to the biopharmaceutical industry through the development of instrumentation, sampling techniques and software for protein secondary structure determination. Her methodology, commercialized as PROTA, is now used by most leading biopharmaceutical companies, and recently the FDA listed FT-IR as one of the strongly recommended techniques for structure elucidation of biopharmaceuticals. Additionally, she pioneered the development of reflection infrared micro-spectroscopy for 'disease diagnostics'. Finally, by bringing VCD to the marketplace, Rina helped cement the use of VCD by major pharmaceutical companies for the determination of absolute configuration of chiral pharmaceuticals that has now become the most widely used technique for the stereo-structure specification of chiral molecules.

Rina has co-authored close to 60 peer-reviewed papers, several review chapters and is a holder of four patents. Dr. Dukor is a recipient of several awards including the Williams-Wright Award (presented at Pittcon), the NRC Award for Business Person of the Year, the Fellow and Distinguished Service Award from the Society for Applied Spectroscopy, and the R&D 100 Award (presented to BioTools for the commercialization of Raman Optical Activity (ROA) instrumentation). The commercialization of VCD as a new groundbreaking analytical technique has been featured in C&EN and on the cover of the UIC Alumni magazine.

Rina serves on several Boards including the Board of Visitors for the College of Liberal Arts and Sciences at UIC, the IBC of Scripps Florida and advisory boards of several companies and leading roles of scientific and business organizations. She served as President of the Society for Applied Spectroscopy in 2000 and on its Executive Board for ten years; as a General Chair of the FACSS (Federation of Analytical Chemistry and Spectroscopy Societies) Conference in 2003, as a co-Chair and as Focal Point Editor for Molecular Spectroscopy (Applied Spectroscopy Journal) for several terms.

Her greatest pride and joy in life are her two remarkable children who from early age understood that their mom had a deep passion for her work, and through their active participation and understanding, allowed her to venture into the world of science and entrepreneurship.

What are the challenges facing SAS and how can we meet these challenges?

I started my service to the Society as a student on a local level in the Chicago Section and continued for almost 10 years on the National Executive Committee and have been on the Governing Board since the early 1990's. Every candidate for every position (including myself in the past) has always written basically the same - our biggest concern is decline and retention of membership. To some extent it is still true but our challenges lie beyond growing membership.

The Society has gone through a bit of 'turmoil' in the past few years with loss in finances, move of the office and loss and changes in personnel. The Executive Committee, the GB and the Office addressed the issues with thought and good processes and the Society is now turning the corner financially. What is critical at this stage is to work together to implement new initiatives that include the SAS 2020 vision brought on by our current President Dr. Diane Parry and a new certification' program that will bring revenue and recognition.

We also must continue to provide value to every member and this value is ever changing and is not the same for every member. The Society continues to do an excellent job in publication of its flagship journal, extending Sections to International countries, strengthening its relationship with FACSS and thus strengthening its annual meeting; working with and helping students and bringing everything to digital age. And as we evolve we must continue *tounderstand* the value of membership. What other values can we offer? – Education (webinars by experts), job placement, publication of an open access journal for members only (without referees) to bring more traffic to the website and society, further internationalization (growing markets of India and China). These are just a few of the ideas that I will continue to pursue in my service on the GB of SAS.



KAREN ESMONDE-WHITE

Karen Esmonde-White she earned her BS in Chemistry from Wheeling Jesuit University (1997), an MS in Chemistry (1999) and an M.Eng (2004) in Pharmaceutical Engineering from the University of Michigan. Her doctoral research with Professor Michael Morris focused on using Raman microspectroscopy to examine musculoskeletal tissues, and she earned her Ph.D. in Biomedical Engineering from the University of Michigan in 2009. Her postdoctoral research in Dr. Blake Roessler's laboratory focused on developing Raman spectroscopy for clinical identification of bone quality in osteoporosis, osteoarthritis and osteomyelitis. In addition to her research, Karen volunteers for professional societies, including the Society for Applied Spectroscopy and the Coblentz Society, serves as an ad hoc reviewer for several clinical and biomedical optics journals, and serves as

the Biomedical Program chair for the 2014 and 2015 SciX conference. She has served SAS as a member of the Awards Committee (2009-2011, chair 2010), Meggers Award Committee (2012), Nominating Committee (2012-2014) and Tellers Committee (2013-2014, chair) and is eager to serve the Society as a Governing Board member.

What are the challenges facing SAS and how can we meet these challenges?

As part of preparing this statement, I read through archived Governing Board and Executive Board candidate profiles, budgets and committee reports. In my own assessment of what makes a SAS membership worthwhile, I find beneficial aspects. These include keeping abreast of the latest technology in my subscription to *Applied Spectroscopy* and sponsored technical sessions at national conferences, the local sections, the SAS Speaker Tour, and recognizing research excellence through its awards. Despite these very positive aspects, I am disappointed that the Society is not making the impact that it could. I believe that the Society's lack of meaningful impact and clear value proposition stems from poor management of our budget. Responsible use of our income is a significant challenge facing SAS today. I will be a strong voice for transparency in budgetary matters and strongly question if the society is receiving a meaningful return on investment for its largest overhead expenses. Cost-saving measures can provide immediate relief to the budget. As an active member of The Coblentz Society, I have seen that efficient and streamlined processes can provide high-quality member services on a limited budget. Money saved by cost-cutting measures would enable reinvestment in the Journal and in local and technical sections. Investment in local and technical sections would strengthen them by enabling initiatives to improve member experience or identify new membership opportunities based on the local needs. Some potentially exciting ways of interacting with new, old and potential members include webinars, updating webpages for local sections, and mentorship and public outreach programs.



GLEN JACKSON

Dr. Jackson joined the faculty of WVU in the fall of 2012 as a Ming Hsieh Distinguished Professor of Forensic and Investigative Science. He also holds appointments in Biology and the C. Eugene Bennett Department of Chemistry. Before moving to WVU, he was an Associate Professor of Chemistry and Director of the Forensic Chemistry Program at Ohio University. His PhD research involved the development of pulsed glow discharges through a variety of fundamental spectroscopic studies. His current research in mass spectrometry instrumentation development and forensic applications has been funded through DOE, NIJ, NSF, and NIH, in addition to an NSF CAREER Award in 2007.

Dr. Jackson is the author or coauthor on two patents, more than 50 publications and more than 100 presentations. He belongs to several professional organizations, including the ACS, RSC, ASMS, AAFS, FIRMS and SAS. He is currently the program chair for SciX 2015 in Providence, RI, and chair of the Forensic and Security Interest Group at ASMS 2015. He was program chair for the 2015 ASMS Sanibel conference on Forensic and Security Applications of Mass Spectrometry. He has served as a grant reviewer for NSF, NIH, DOE and NASA and has reviewed manuscripts for more than a dozen different analytical journals. He is a member of the NIST OSAC subcommittee on Seized Drugs, has taught several forensic-related mass spectrometry workshops, and is an active forensic chemistry consultant.

What are the challenges facing SAS and how can we meet these challenges?

SAS undoubtedly struggles with the same major issues of most scientific organizations. Examples include: 1) maintaining or growing society membership; 2) remaining financially solvent; and 3) encouraging members to volunteer to serve or lead the membership through committee work. Through my involvement with FACSS/SciX over the years, I have witnessed a very passionate core of leaders within SAS, and a loyal following of members at various SAS events. I look forward to using my knowledge and experience with other professional organizations to help serve the ~2000 members of SAS. As a former student member of SAS myself, I can still remember the excitement of society membership and the monthly arrival of the very colorful *Applied Spectroscopy*. We need to continue this tradition and foster a sense of membership early in our members' careers.

Although I am not familiar with the detailed financial status of the society, I will bring my experience with other scientific societies—both smaller and larger than SAS—to help the board budget responsibly and plan for a secure financial future. The American Society for Mass Spectrometry (ASMS) has some interesting ways to recruit and “test” new talent and future leaders, and I look forward to incorporating some of their successful strategies to help develop volunteers and future leaders within the SAS ranks.

Regarding outreach, I believe one interesting opportunity for SAS is to provide guidance to the forensic science community on acceptance criteria for spectroscopic data. Specifically, the NIST OSAC subcommittee on seized drugs is currently pondering the issue of acceptance criteria for qualitative analytical results, and SAS could provide some missing leadership and expertise to help define standards or metrics for the comparison of spectroscopic data.

I look forward to collaborating with the SAS board members to maintain the vitality of the organization and to help promote the art and science of spectroscopy and allied topics.



SHAWN LaCASSE

Shawn LaCasse received her B.A. in Chemistry from Albion College in 1998. During her tenure at Albion, she participated in undergraduate research at Michigan State University which focused on organic synthesis of chromophores for optical information storage as well as at Oak Ridge National Laboratory, where she built a library of reference spectra using gas chromatography/ ion trap mass spectrometry for use in Department of Defense applications. After completing her B.A., she received her M.S. degree in Analytical Chemistry from Michigan State under the guidance of Dr. Gary Blanchard. Shawn's research involved examining energy migration and morphology control of organic thin films using a variety of spectroscopic and other characterization techniques. She began her pharmaceutical career at Pfizer in 2001 working in a preformulation group which concentrated on the characterization of active pharmaceutical ingredients (API), as well as developing formulations for animal and early human clinical studies. It was at Pfizer where Shawn began working in the field of vibrational spectroscopy, primarily focused on Raman and its utility in the solid-state to characterize polymorphs and pseudo-polymorphs, as well as in situ monitoring of polymorphic conversions during crystallizations and in suspension formulations. In 2007, Shawn moved to Groton, CT to continue her career with Pfizer in the Materials Science group, where she currently resides. Her research interests remain in Raman spectroscopy but have now expanded to include using Raman in a variety of configurations to understand API solid form issues alone as well as in the drug product (DP). She is especially interested in using Raman spectroscopy combined with other techniques such as ssNMR to assess the physical stability of API once

formulated as DP. Shawn has authored or co-authored 8 journal publications and has presented her work in a multitude of venues. Her past responsibilities within SAS include Publicity Chair and Chair of the Williams-Wright Award Committee for the Coblentz Society.

What are the challenges facing SAS and how can we meet these challenges?

I believe that one of the biggest challenges facing SAS is companies reducing their budgets and the subsequent effect on members. These reductions typically begin with a decrease or elimination in amenities previously provided such as travel to scientific conferences as well as payment for dues to professional societies. In the best situation, employers fully cover travel and dues. More recently, in many cases, companies tend to limit the amount they pay toward professional memberships, or may not pay for them at all. Travel may be restricted to once every 1-3 years for an employee, and even then it is not guaranteed, which in turn affects attendance at conferences, both locally and nationally. This drop in attendance hurts groups like SAS. While I understand the importance of officers attending national meetings in person, this may make some think twice about serving their society, no matter how passionate they may be about it. Without financial assistance from their employer, people may not seriously consider running and/or serving, knowing that the attendance requirement may force them to self-fund at least part or perhaps their entire trip to a national meeting like SciX. I understand and agree that meeting face to face is important, but believe that we should investigate other options as well.

I look forward to the opportunity to serve my society and become more involved, but personally the budget piece has been one reason for my hesitancy up to now, which is why I wanted to highlight it as a significant challenge. There are many communication options (videoconferences and teleconferences with various providers) that companies are using to reduce travel expenses and increase global communication. This doesn't replace face to face communications, but can certainly augment it when other options aren't available. I believe that SAS would benefit greatly from exploring these options, especially when it comes to formal board meetings. At the minimum, this would allow members who are interested in participating more but who are financially constrained to be more active. This in turn could attract new members as well as increase current member participation.



IGOR LEDNEV

Igor K. Lednev is a professor at the University at Albany, State University of New York. Graduating from the Moscow Institute of Physics and Technology, Russian Federation, he received his Ph.D. in 1983. Dr. Lednev then held a position as a group leader at the Institute of Chemical Physics, Russian Academy of Sciences. As an academic visitor, he worked in several leading laboratories around the world in countries including the United Kingdom, Japan, Canada and Germany. In 1997, Dr. Lednev came to the US and joined Prof. Sanford Asher's laboratory at the University of Pittsburgh, until moving to the University at Albany in 2002. Dr. Lednev's research is focused on the development and application of novel laser spectroscopy for biomedical research and forensic purposes. To name a few accomplishments, Dr. Lednev and co-workers discovered a new type of protein folding-aggregation phenomenon, spontaneous refolding of amyloid fibrils; demonstrated that amyloid fibrils possess and vary their supramolecular chirality depending on aggregation conditions; and developed a new method for biological stain and gunshot residue forensic analysis based on vibrational spectroscopy. Dr. Lednev

is Fellow of the Society for Applied Spectroscopy. He served as an advisory member for the White House Subcommittee on Forensic Science. He is on the editorial boards of four scientific journals including the Journal of Raman Spectroscopy. Dr. Lednev is a recipient of several awards including the Research Innovation Award and the Chancellor's Award for Excellence in Scholarship and Creative Activities. He has co-authored over 160 publications in peer-reviewed journals, including a 2009 article in Forensic Science International, a top journal in the field, which is one of the most downloaded and most cited papers from this journal.

What are the challenges facing SAS and how can we meet these challenges?

As a member of the Society for Applied Spectroscopy and a regular participant of FACSS/SciX meeting during the last fifteen years I am pleased to recognize a noticeable advancement in the breath, scientific and technical level, quality and popularity of the Society and the Meeting. The focus of the Meeting reflexes the development of the field of applied and fundamental spectroscopy. Applied Spectroscopy journal is well-respected in the field as a high quality, peer reviewed source of new discoveries and developments as well as critical review articles. The journal also plays an important role as a helpful forum of the Society by offering information on Society activities as well as stimulating an open discussion of the Society challenges and future development. In May issue of the journal, Editor Fred Haibach briefly indicated several key questions concerning SAS 2020 Vision based on a round table, which took place at Pittcon 2015. I believe the journal readers and Society members would be certainly interested in more detailed overview and analysis of the round table discussion and follow-up suggestions and comments. The journal Editorial Board might consider having something like *Editor Corner*, where the central aspects of the Society activity including the challenges facing SAS and how these challenges can be met would be discussed. This corner could be in the form of brief letters from SAS members and, perhaps, responses from SAS executives. Such open dialog on the journal pages might engage large number of SAS members into the discussion.

In addition to a few vital questions concerning the SAS 2020 Vision, which were mentioned in May issue of the journal, I would also suggest to consider (i) how SAS can keep attracting new generation of scientists and (ii) how SAS can become more international organization. One of possible approaches for tackling the former task is to go as "early as possible" and work with K-12 students as well as college undergraduates. Several forms could be utilized including special activities at SciX meetings and on-site (at schools) spectroscopy sessions, demonstrations, workshops, etc. The second suggestion (becoming a more international organization) would first require an informed decision on whether it is a current priority for SAS. If yes, the possible activities might involve growing regional sections such as in the UK, participating at oversee meetings, inviting foreign leading experts as speakers at SciX, etc.



BERNHARD LENDL

Bernhard Lendl received his PhD in Chemistry from Vienna University of Technology in 1996. He was appointed associate professor of Analytical Chemistry in 2001 at the same university, and from 2003 to 2004 he was guest professor at the University of Córdoba, Spain. In 2008 he co-founded QuantaRed Technologies, where he acts as scientific director. Since 2011 he is the head of the division of Environmental and Process Analytical Chemistry at Vienna University of Technology. His research focuses on the development of novel methods and technologies based on infrared and Raman spectroscopies for use in analytical chemistry. His current work centers on mid-IR Quantum Cascade Lasers for environmental and process monitoring, lab-on-a-chip systems for time resolved

mid-IR spectroscopy, ultrasound enhanced mid-IR fiber optic sensors, surface enhanced Raman scattering and stand-off Raman spectroscopy. His work is summarized in more than 190 reviewed papers and has led to 6 international patent applications. Currently, Bernhard Lendl serves on the editorial boards of Applied Spectroscopy and Vibrational Spectroscopy and, furthermore, he will chair the 8th ICAVS conference to be held in July 12-17 2015 in Vienna.

What are the challenges facing SAS and how can we meet these challenges?

I think a common ground of all members of the Society of Applied Spectroscopy is their professional interest in the art and science of spectroscopy. This interest, often mixed with true enthusiasm for spectroscopy, typically arises early in one's career when engaging in first research projects. It typically continues, albeit with a different spin, later during one's professional life, either in academia or industry. It has to be the goal and first motivation of SAS to support its members worldwide throughout their careers in all kinds of educational and professional challenges that regard spectroscopy.

Second, awareness of spectroscopy's growing capabilities to solve real analytical problems in many different fields is essential to stimulate further research and development in applied spectroscopy. Technological advances in analytical sciences are made in many competing technological areas. A strong presence of spectroscopic techniques in the competing and tough field of advanced research is imperative to secure research funding for this. A broad public awareness of the powers of spectroscopy is thus of high relevance to all SAS members.

An active role of SAS in promoting spectroscopy is hence of high importance to its members, but also for other scientists and practitioners of spectroscopy. Whereas SAS has gained a strong position within the Americas, it is still far less known in the rest of the world. Here, SAS faces the major challenge that more and more high-quality research and spectroscopy applications are found outside the Americas. To address these challenges, SAS needs to strengthen its truly international setting and vision to actively support spectroscopy worldwide. A proper means to achieve this is the creation of more regional sections located in other continents. I would hence like to join the governing board of SAS with the clear focus of broadening the operational radius of SAS by promoting its expansion beyond the Americas focus.



MARK MABRY

Mark Mabry is a molecular spectroscopist with 20 years of industrial experience. Mr. Mabry graduated from West Virginia University with a master's degree in chemistry in 1992. His thesis work involved the study of solvent-solute interactions using solvatochromatic shifts in FTIR and Raman spectra. After graduate school, he worked briefly as an environmental chemist before taking a position as an analytical research scientist with Rayonier, a chemical cellulose manufacturer. In this role he used FTIR microscopy to investigate product contaminants and worked to develop FT-Raman methods to characterize cellulose and cellulose based polymers, and also participated on a PAT team to implement a NIR method to monitor process variables. Next, Mr. Mabry held the position of FTIR, Raman, and micro-spectroscopy applications chemist for Thermo Fisher Scientific. Based on his exposure to the pharmaceutical industry, he transitioned to a position as a product development scientist for Pfizer Consumer Healthcare in Richmond, VA where he has lived since 2004. Mr. Mabry returned to

a 100% spectroscopy focus in 2012 as a field applications scientist with Rigaku Raman Technologies and now as applications scientist and service engineer for Cobalt Light Systems, Inc., based in Reston, VA.

Mr. Mabry has been actively involved with both the Society for Applied Spectroscopy and the American Chemical Society. He served the SAS as the Tour Speaker Coordinator for 2014. He was also the Exposition chair for the 2011 Southeast Regional ACS meeting (Richmond, VA).

In his spare time, Mr. Mabry is an avid sailor who enjoys racing on a nearby lake and sailing on the Chesapeake Bay with friends and family.

What are the challenges facing SAS and how can we meet those challenges?

One major challenge facing SAS is cultivating an active membership. Active membership is more than just people willing to pay dues. All organizations including scientific societies are only viable as long as there are active members willing to participate in events and volunteer their time to the growth of the society. Scientists are pulled in many directions today, and between work and personal responsibilities, they do not have extra time to devote to activities that do not have a clear purpose and benefit. Also, with travel costs increasing, attending long-distance meetings may need specific justification for members to receive financial support from their employer. Members need to be able to clearly connect how being a member of SAS benefits their career or advancement of the field of spectroscopy.

One way to make that connection is through participation in local sections where members can more frequently interact with other members without needing to allocate large amounts of time or travel expenses. For example, the American Chemical Society (ACS) utilizes their local sections very effectively in this regard. These local section meetings offer networking as well as volunteer and leadership development opportunities. Currently, in SAS there is a range of local section activity. Some sections are strong and hold regular events and programs. Others are essentially inactive. The other challenge is distance between local sections and members. I live approximately 100 miles from a local section that is not extremely active.

To meet the challenge of improving local sections towards promoting a more active membership, I would recommend an assessment or survey of how local sections are currently doing, where are members located and could new local sections be encouraged in those areas, and finally what technologies or social media could be used to connect members when geography is prohibited. I would like to explore the idea of virtual local sections or technical subgroups. Another solution that may work in certain situations is that where possible, SAS local sections may also be able to coordinate meetings with other technical societies such as the ACS, as many members may belong to both. I think that there are opportunities for the SAS to grow by offering value for membership, the challenge is to make the benefits available in spite of the various time and resource conflicts.



JEAN-FRANCOIS MASSON

Jean-François Masson is an Associate professor of Chemistry at the Université de Montréal. His expertise encompasses biosensing with plasmonic materials, instrument development, surface chemistry to minimize biofouling and detection of proteins and drugs directly in crude biofluids. Jean-François holds a BSc in Chemistry

from Université Sherbrooke (2001), a PhD in Analytical Chemistry from Arizona State University (2005), and did a postdoc at Georgia Tech (2005-2007). Jean-Francois received several awards including the Tomas Hirschfeld award (2005), the Fred Beamish award (2013), an Alexander von Humboldt fellowship (2013-2014), and a CNC-IUPAC travel award (2015). He has published more than 70 research articles and his research has led to filing 8 patents on diverse instrumental, materials or surface chemistry innovations for biosensing. Jean-Francois is a member of SAS since 2002. He is a member of the long-range planning committees of FACSS and SciX, he serves on the Executive committee of the Analytical division of the Canadian Society of Chemistry and on the Executive committee of the College of arts and sciences at Université Montréal. He is currently an Associate Editor for the Analyst.

What are the challenges facing SAS and how can we meet these challenges?

I have personally benefited from my continued membership in SAS and I believe it is time to be involved in SAS. SAS is important in the development of spectroscopists and of the field. It is also important to underline the aspects SAS is doing particularly well. The proximity to the member base is one of the main strength of SAS. Being part of SAS feels like family. This must be maintained. The networking events held frequently in conferences attended by SAS members are major contributors to this. SAS is also performing particularly well with the outreach activities targeted to younger spectroscopists. The numerous scholarships and student networking events are highly appreciated. In addition, SAS supports numerous prestigious awards recognized internationally. These are only a few examples of strengths of SAS. As for many other professional societies, SAS is facing several challenges. In my opinion, two challenges are more pressing: converting the strong member base of younger scientists to long-term members when they start their careers and identifying emerging areas of spectroscopy that could benefit from representation in SAS.

The society is already doing well in recruiting student members. Involving student members in the society when they start their careers will have long-term benefits. This was already done with student representatives, but there could also be an assistant professor representative and/or a young industrial representative on the board or the executive committee to assure the implication of former students members when they start their careers. Emerging areas of spectroscopy, such as surface plasmon resonance and plasmonics, do not have a professional society. With an already strong program at SciX, SAS would be a great home for a technical section on the topic. Identifying other emerging areas of spectroscopy would increase the member base and increase the exposure of SAS.



JACOB SHELLEY

Jacob Shelley was born in Albuquerque, NM in 1984. He earned his B.S. in Chemistry from Northern Arizona University in Flagstaff, AZ in 2005. His research at NAU, while working under Prof. Diane Stearns, was focused on examining metal-DNA adducts with ICP-AES. He worked at Los Alamos National Laboratory for four summers on a wide range of projects including metallomics with X-ray fluorescence detection, developing nanoporous silica substrates for matrix-free MALDI, and method development for detecting a wide range of radioactive materials. He completed his Ph. D. at Indiana University under Prof. Gary Hieftje in 2011 where his research focus was on the development, characterization, and application of novel plasma ionization sources for ambient, molecular mass spectrometry with particular attention on the Flowing Atmospheric-Pressure Afterglow (FAPA) source. Jake started his postdoctoral research with Prof. R. Graham Cooks at Purdue University 2011

where he developed portable mass spectrometers capable of *in situ* analyses. In 2012, Jake was awarded a prestigious Alexander von Humboldt Post-Doctoral Fellowship to work with Dr. Carsten Engelhard at the University of Münster in Germany. In 2014, Jake became an assistant professor at Kent State University. His current research interests lie in the area of fundamental characterization of plasma-based ionization methods and expanding the capabilities of such sources. He currently has authored 27 published journal articles as well as 2 United States patents and has given more than 20 invited presentations at national and international venues.

What are the challenges facing SAS and how can we meet these challenges?

I have been around or involved in the SAS since I was an undergraduate student at Northern Arizona University; participating in local, student, and conference events since 2004. Since that time, this organization has seen massive growth in student participation, which was heavily lacking some 11 years ago. The growing student population and overall interest was due to increased publicity, events, and involvement of students within the organization as well as the foresight from the leaders in organization to strengthen the future of the SAS. It has been wonderful to watch the organization progress in such a manner.

At the same time, however, there has been an apparent decrease in involvement by more senior scientists with fewer and fewer new faces being involved in SAS, which could result in a stale image. The lull in student involvement/recruiting in the early 2000s can explain some of the current decreased involvement, but not all. The SAS membership/involvement has also been affected by the emergence of smaller, more specialized societies.

Some of the major strengths of the society are the diversity of research interests/experience and the support from a large membership base, yet with the close-knit community of a smaller society. This type of environment is ripe for developing and fostering collaborative interactions within the SAS. The society should advertise this aspect as well as invest some resources in intra-society research interactions (e.g., small financial awards to initiate a proposed collaborative project). At the same time the SAS should actively try to recruit young faculty working in an area of spectroscopy, but may be unfamiliar with the SAS; these recruitment efforts could be done with discounted registration fees to the SciX conference or reduced membership fees. A combination of these types of efforts will increase membership in the organization, foster communication/interaction within the society, and lead to a broader distribution of member backgrounds; the result, in turn, will be a strong prosperous future for the SAS.

OVERVIEW OF PROPOSED CONSTITUTIONAL CHANGES

Goal for Society	Reason for Change
1) Recognize Change	Recognize use of virtual meetings for SAS business
2) Recognize Change	Recognize and enable use of electronic tools (e.g. email) for voting on SAS business.
3) Improve Focus	Align Fellow requirements with ACS language.
4) Enable Growth	Enable addition of new Society Publications
5) Clarify Roles	Clarify Central and Regional, Technical, and Student Society operations

In order to clearly enable the recent addition of significant virtual meetings in the interest of the Society, and in anticipation that virtual meetings are a trend that will be important to the Society in the future, the following changes are proposed:

ARTICLE XII. MEETINGS

Change:

SECTION 1. There shall be one (1) REGULAR MEETING of the Society per year at which the Governing Board shall convene. This meeting shall be at a time and place recommended by the Executive Committee and approved by the Governing Board.

SECTION 2. The regular meeting shall be known as the ANNUAL MEETING, and shall be for the purpose of announcing officers for the coming year, receiving reports of officers and committees, and for any other business that may arise.

SECTION 3. SPECIAL MEETINGS may be called by the Executive Committee or the Governing Board, as stated in the Bylaws. The purpose of the meeting shall be stated in the call.

SECTION 4. A QUORUM of the Governing Board shall consist of two-thirds (2/3) of the elected members. The appointed officers and the Second-Past President may serve as voting alternates for the elected members.

To:

ARTICLE XII: SAS MEETINGS

SECTION 1. In general, all meetings of the Society and its Committees can occur in-person or virtually (e.g. by electronic means, such as telephone or computer), unless otherwise specified in the Society's Constitution or Bylaws. For a meeting to be an official meeting of the Society, details of the meeting must be recorded and reported in the official records kept in the Society's Office.

SECTION 2. There shall be one (1) REGULAR MEETING of the Society per year at which the Governing Board shall convene **in-person**. This meeting shall be at a time and place recommended by the Executive Committee and approved by the Governing Board.

SECTION 3. The regular meeting shall be known as the ANNUAL MEETING, and shall be for

the purpose of announcing officers for the coming year, receiving reports of officers and committees, and for any other business that may arise.

SECTION 4. SPECIAL MEETINGS may be called by the Executive Committee or the Governing Board, as stated in the Bylaws. The purpose of the meeting shall be stated in the call.

SECTION 5. A QUORUM of the Governing Board shall consist of two-thirds (2/3) of the elected members. The appointed officers and the Second-Past President may serve as voting alternates for the elected members.

In order to enable electronic balloting, in general, for Society business:

ARTICLE VIII. OFFICERS

SECTION 2. The ELECTED OFFICERS of the Society shall consist of a President, President-Elect, Past President, Secretary, and Treasurer. Candidates for these offices shall meet the qualifications as set forth in the Bylaws of the Society. These officers shall be elected by the members eligible to vote, as stated in the Bylaws, by means of a ballot according to the procedure listed in the Bylaws of the Society. These officers shall perform the duties listed in the Bylaws of the Society and the parliamentary authority adopted by the Society.

To:

SECTION 2. The ELECTED OFFICERS of the Society shall consist of a President, President-Elect, Past President, Secretary, and Treasurer. Candidates for these offices shall meet the qualifications as set forth in the Bylaws of the Society. These officers shall be elected by the members eligible to vote, as stated in the Bylaws, by means of either a **physical or electronic** ballot according to the procedure listed in the Bylaws of the Society. These officers shall perform the duties listed in the Bylaws of the Society and the parliamentary authority adopted by the Society.

In order to formally recognize a STUDENT REPRESENTATIVE position in the Society, and enable future Student appointments and development toward career participation in the Society, the following changes are recommended:

ARTICLE VIII. OFFICERS:

Change:

SECTION 6. The APPOINTED OFFICERS of the Society shall be the Editor-in-Chief of the Journal, the Newsletter Editor, the Web Editor, the Membership Committee Chairperson, and the Regional and Technical Section Affairs Coordinator. These officers shall perform the duties prescribed by the Bylaws of the Society. These officers shall be appointed by the Governing Board upon recommendation of the Executive Committee and shall serve for a three (3) year renewable term or until their successors are appointed. The appointed officers shall begin their respective terms at the beginning of the calendar year.

To:

SECTION 6. The APPOINTED OFFICERS of the Society shall be the Editor-in-Chief of the Journal, the Newsletter Editor, the Web Editor, the Membership Committee Chairperson, and the Regional and Technical Section Affairs Coordinator. These officers shall perform the duties prescribed by the Bylaws of the Society. These officers shall be appointed by the Governing Board upon recommendation of the Executive Committee and shall serve for a three (3) year renewable term or until their successors are appointed. The appointed officers shall begin their respective terms at the beginning of the calendar year. **Along with the appointments listed above, a Student**

Representative will be elected by the Student Members of the Society, and this Student Representative will be put forward for acceptance and appointment by the Governing Board to serve a two year term as a non-voting Officer of the Society, until their successor is appointed.

In order to better include recognition for contribution to SAS in the Fellows selection criteria, we propose the following change:

These changes align the language for SAS Fellows with the description of ACS Fellows.

ARTICLE IV. MEMBERSHIP

Change:

SECTION 10. FELLOWS are individual members recognized for their outstanding service to the field of spectroscopy. Fellows must continue to be members in good standing of the Society in order to maintain Fellow status

To:

SECTION 10. FELLOWS are individual members recognized for their outstanding achievements in and contributions to the science, the profession and the Society for Applied Spectroscopy. Fellows must continue to be members in good standing of the Society in order to maintain Fellow status.

In order to enable continuous enhancement of the Society's ability to disseminate knowledge, in accordance with its stated objectives, we recommend the following option-enabling changes to the Publications guidance in the Constitution:

ARTICLE XIV. PUBLICATIONS

Change:

SECTION 1. The journal *Applied Spectroscopy* shall be the official publication of the Society and shall be distributed to the membership in accordance with the provisions of the Bylaws. The Society may also publish a membership newsletter.

SECTION 2. The Journal and Newsletter shall operate on a budget approved by the Governing Board.

SECTION 3. The Editor-in-Chief of the Journal shall appoint his/her own staff and is responsible for the policy of the Journal.

To:

SECTION 1. The journal *Applied Spectroscopy* shall be an official publication of the Society and shall be distributed to the membership in accordance with the provisions of the Bylaws. The Society may also publish a membership newsletter, as well as additional Journals or Newsletters, in accordance with the Bylaws..

SECTION 2. Journals and Newsletters shall operate on a budget approved by the Governing Board.

SECTION 3. The Editor-in-Chief of the *Applied Spectroscopy* Journal shall appoint his/her own staff and is responsible for the policy of the Journal. Additional Journals will also have Editor-in-Chiefs, with similar responsibilities.

To provide clarifying guidance to members on the relative responsibilities of the Society and its Regional Affiliates and Sections.

The inspiration for this guidance are the published documents of the American Chemical Society.

ARTICLE IX. GOVERNMENT

SECTION 1. The Society shall be governed by the elected officers and the Governing Board.

SECTION 2. The GOVERNING BOARD shall consist of the elected officers, the second-Past President, and 10 elected members. Those elected shall consist of 10 at-large members elected by the Society membership. In addition, each Technical, Student, or Regional Section may send one voting delegate to represent that Section.

SECTION 3. Each elected Governing Board Member and each Regional, Student, or Technical Section delegate will have one vote. Elected member terms shall be two (2) years, and members can be re-elected for future terms.

SECTION 4. A QUORUM of the Governing Board shall consist of two-thirds (2/3) of the elected members. The appointed officers and the Second-Past President may serve as voting alternates for the elected members.

SECTION 5. The elected officers, as voting members, and the appointed officers as non-voting members, shall constitute an EXECUTIVE COMMITTEE which shall assume responsibility for the government and welfare of the Society in the interim between Governing Board meetings.

To:

ARTICLE IX. GOVERNANCE

SECTION 1. The SOCIETY shall be composed of members who in turn may be members of its Regional, Technical or Student Sections. It shall be governed by its elected officials and a Governing Board which, in addition to such duties as may be prescribed in this Constitution and Bylaws of the SOCIETY, shall:

- 1) Act as an advisory body; a Board of Directors, which shall be the legal representative of the SOCIETY and establish its administrative policies; committees of both the Executive Committee and of the Board; and such officers and employees as are necessary to effectuate its purposes.
- 2) Have responsibility for consistent Society-wide promotion of member interests, via various communications, awards, branding, marketing and development or maintenance of Regional, Technical and Student Sections.

SECTION 2. The GOVERNING BOARD shall consist of the elected officers, the second-Past President, and 10 elected members. Those elected shall consist of 10 at-large members elected by the Society membership. In addition, each Technical, Student, or Regional Section may send one voting delegate to represent that Section.

SECTION 3. Each elected Governing Board Member and each Regional, Student, or Technical Section delegate will have one vote. Elected member terms shall be two (2) years, and members can be re-elected for future terms.

SECTION 4. A QUORUM of the Governing Board shall consist of two-thirds (2/3) of the elected members. The appointed officers and the Second-Past President may serve as voting alternates for the elected members.

SECTION 5. The elected officers, as voting members, and the appointed officers as non-voting members, shall constitute an EXECUTIVE COMMITTEE which shall assume responsibility for the government and welfare of the Society in the interim between Governing Board meetings.

ARTICLE V. REGIONAL SECTIONS

SECTION 3. The Constitution and Bylaws of such Regional Sections shall be consistent and in harmony with the Objective and the Constitution and Bylaws of the Society. They shall be submitted to the Constitution and Bylaws Committee for approval prior to approval by the Governing Board of the Society; any subsequent changes must also be submitted to this committee for approval prior to approval by the Governing Board.

To:

ARTICLE V. REGIONAL SECTIONS

SECTION 3. The Constitution and Bylaws of such Regional Sections shall be consistent and in harmony with the Objective and the Constitution and Bylaws of the Society. By its meetings, professional contacts, reports, papers, discussions and publications, Regional Sections should promote the advancement and dissemination of knowledge and information concerning the art and science of spectroscopy and other allied sciences, providing the greatest benefits for local members and industry. The Constitution and Bylaws of such Regional Sections shall be submitted to the Constitution and Bylaws Committee for approval prior to approval by the Governing Board of the Society; any subsequent changes must also be submitted to this committee for approval prior to approval by the Governing Board.

ARTICLE VI. TECHNICAL SECTIONS

SECTION 2. The Constitution and Bylaws of such Technical Sections shall be consistent and in harmony with the Objective and the Constitution and Bylaws of the Society. They shall be submitted to the Constitution and Bylaws Committee for approval prior to approval by the Governing Board of the Society; any subsequent changes must also be submitted to this committee for approval prior to approval by the Governing Board.

To:

ARTICLE VI. TECHNICAL SECTIONS

SECTION 2. The Constitution and Bylaws of such Technical Sections shall be consistent and in harmony with the Objective and the Constitution and Bylaws of the Society. By its meetings, professional contacts, reports, papers, discussions and publications, Technical Sections should promote the advancement and dissemination of knowledge and information concerning specific aspects of the art and science of spectroscopy and other allied sciences, providing the greatest benefits to members and industry with related technical interests. The Constitution and Bylaws of such Technical Sections shall be submitted to the Constitution and Bylaws Committee for approval prior to approval by the Governing Board of the Society; any subsequent changes must also be submitted to this committee for approval prior to approval by the Governing Board.

ARTICLE VII. STUDENT SECTIONS

SECTION 2. The Constitution and Bylaws of such Student Sections shall be consistent and in harmony with the Objective and the Constitution and Bylaws of the Society. They shall be submitted to the Constitution and Bylaws Committee for approval prior to approval by the Governing Board of the Society; any subsequent changes must also be submitted to this committee for approval prior to approval by the Governing Board.

To:

ARTICLE VII. STUDENT SECTIONS

SECTION 2. The Constitution and Bylaws of such Student Sections shall be consistent and in harmony with the Objective and the Constitution and Bylaws of the Society. By its meetings, professional contacts, reports, papers, discussions and publications, Student Sections should promote the advancement and dissemination of knowledge and information concerning the art and science of spectroscopy and other allied sciences, providing educational and professional development opportunities for Student members. The Constitution and Bylaws of such Student Sections shall be submitted to the Constitution and Bylaws Committee for approval prior to approval

by the Governing Board of the Society; any subsequent changes must also be submitted to this committee for approval prior to approval by the Governing Board.