SAS SPECTRUM eNEWS

In Memory of John Jackovitz

SAS mourns the passing of SAS Founding Father and former President John Jackovitz on January 30, 2019. John's contributions to spectroscopy, SAS, the SAS Pittsburgh section, and Pittcon were unparalleled. He was a true leader and mentor. We will miss his smile and amazing personality. SAS will have a more detailed tribute to John in the next issue of the newsletter, as well as other recognition of his service to SAS and spectroscopy. In the meantime, here is a link to John's obituary: https://www.legacy.com/obituaries/postgazette/obituary.aspx?pid=191420667

Pittcon 2019 will be held March 17–21, 2019 in Philadelphia, PA

SAS is proud to sponsor two sessions on Tuesday:

8:30 am — New Frontiers and Challenges in Clinical Spectroscopy
Organizer: Ji-Xin Cheng, Boston University

1:30 pm — Current and Emerging Methods for Optical Trace Gas Analysis
Organizer: Robert Lascola, Savannah River National Laboratory

Please join these sessions if your schedule permits and help promote Applied Spectroscopy at Pittcon 2019!

SAS 2019 President's Message

It is a great honor to have been selected by my peers to be the SAS President in 2019. The work of guiding a professional society requires tremendous commitment, and I am deeply impressed by the effort, dedication, and creativity of those who have come before me. I'm looking forward to meeting the challenges that arise and trying to follow the examples I have been fortunate to observe firsthand.

SAS presents great opportunities for its members. Many of the leaders in our field are members, and SAS is small enough that it's relatively easy for a determined person to connect with a member to discuss an idea or obtain some guidance. Likewise, SAS members inclined to take on projects can find support from Society leadership and the means to accomplish their goals.

That said, it's often a trick for a group of our size to maintain all of the functions we expect from a scientific society. Whether it's section activities, maintaining functions like choosing award winners, or larger projects like growing SAS into new areas of spectroscopy, the fate of the work often depends on a few people—or even one person! We have a number of dedicated members who work on these projects, but too many times, we need those one or two extra people to keep up the momentum after the initial burst of progress.

Therefore, my request to the membership is to make 2019 your year of change within SAS. Examine your involvement in SAS and find something that you would like to help with, create, or improve. Start talking with your peers, the Executive Committee and the Governing Board, and the Society Office. For example, is there a field of applied spectroscopy that is underrepresented at the Society level? Develop a new symposium, or find some like-minded colleagues to form a new technical section or revitalize and existing one. SAS became a leading organization for many fields of spectroscopy through people stepping up to organize and bring top practitioners together. As another example, do you need to find a mentor or improve your networking or are you looking to share your expertise on a more regular basis? Be active in seeking advice, or offering your help, not just in formal sessions but whenever the opportunity arises.

The Executive Committee and committee chairs are regularly working on new programs and member benefits. Recent and current developments include our revised web site, a new student award in atomic spectroscopy, enhanced members-only benefits, and virtual meeting/webinar-hosting capabilities. More programs are in the works and will be announced during the year. But there's no need to wait on us—we always welcome proposals from the membership. Historically, proposals have usually concerned conference symposia, and we are still interested in supporting those. However, we are also receptive to funding other good ideas that further the mission of SAS. If you have an idea you'd like to pursue, please talk with me, or anyone on the EC. We want to help you bring your ideas to fruition!

I eagerly anticipate the opportunity to work with all of our members as SAS President. With your help, 2019 will be a great year for SAS!

Contributed by Rob Lascola
saspresident2019@gmail.com

SAS 2018 President's Message

As the outgoing 2018 SAS President, I was pleased about the celebration of our 60th anniversary as a Society. Our 60th anniversary activities were spearheaded by our Marketing Chair, Dr. Andrew Whitley from Horiba Scientific. Andrew and his team planned many important initiatives and events throughout this past year that many of our members were able to participate in. The following were just some of these special activities:

- Special 60th Anniversary Supplemental Issue of the Applied Spectroscopy
- Inaugural mailed Quarterly Applied Spectroscopy Table of Contents
- 60th Anniversary Tour Speaker Program
- Special 60th Anniversary Symposium at SciX highlighting the historical, current and future drivers of five key spectroscopy technologies
- Dedicated SAS Awards Ceremony at SciX
- Anniversary Wine and Cheese Extravaganza for Members at SciX
- 60th Anniversary Calendar, Spectroscopy Timeline Poster and other collectables
- Inaugural LIBS Best Paper in Applied Spectroscopy Award

As noted above, many of the events took place at SAS National Meeting which was held at SciX Conference (October 21–26, 2018) in Atlanta, Georgia. I hope that in the future all our SAS members will be able to attend our National Meeting at SciX. This year the meeting will be held in Palm Springs, California, October 13–18, 2019.

I want to thank all our members, officers and our national office staff for helping me in the privilege of serving as your SAS 2018 President.

Best regards,

Mike Carrabba,
2019 SAS Past President
mcarrabba@rrslabs.com

Seeking 2019 SAS Atomic Spectroscopy Student Award Nominations

In 2019, the Society for Applied Spectroscopy (SAS) and the SAS Atomic Technical Section will honor up to four students with the inaugural SAS Atomic Spectroscopy Student Award. This award will be given to students (undergraduate or graduate) who have excelled in the area of Atomic Spectroscopy. Students selected for this award will be required to present their work as an oral presentation at SciX 2019 which will be held in Palm Springs, California, on October 13–18, 2019. The award will come with travel assistance (>$500) and a two-year SAS membership after graduation. To apply or recommend a student, please submit the following materials:

(1) A letter of recommendation from the student's advisor,

(2) one-page letter from the student highlighting their accomplishments/credentials and how their research impacts the field of atomic spectroscopy, and

(3) a scientific abstract for work they would present if chosen. Documents should be emailed to Derrick Quarles and Ben Manard at atomic.section@s-a-s.org no later than March 1, 2019 with award winners being notified by the beginning of April.

Students that apply for the award either need to be an SAS member or they can register at the time of submission. Student memberships can be completed online or by phone (+1-301-694-8122).

New York SAS Section Announces the February 2019 meeting

Speaker: Dr. Vinay Bhardwaj, Research Scientist in Global Technology Center at Colgate–Palmolive, and an Adjunct Professor of Biomedical Engineering at The College of New Jersey.

Title: Raman and Surface-Enhanced Raman Spectroscopy (SERS):In Situ Nano-Sensors and Nano-Medicine.

Time: February 20, 2019 5:30–8:00 PM

RSVP for Dinner by Feb 19th to debperu@outlook.com

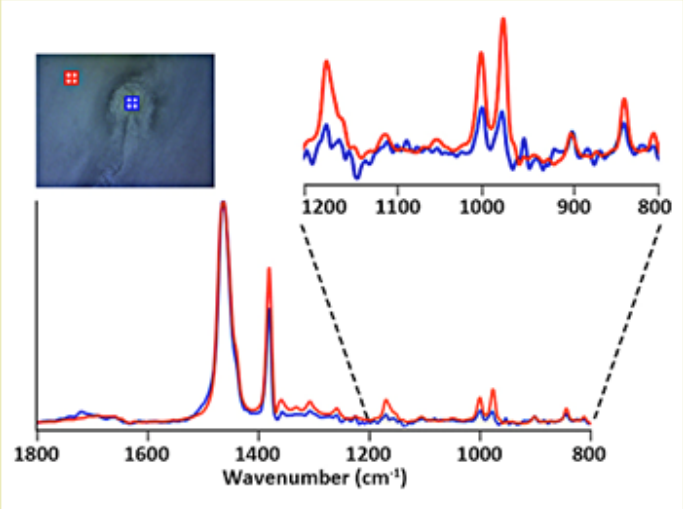
Location: Horiba Scientific (new location), 20 Knightsbridge Road, Piscataway, New Jersey 08854.

If you cannot attend, we will live stream the presentation. RSVP for the live stream by February 19, 2019, to debperu@outlook.com and we will send you a link to the webinar.

The 2018 December Meeting of the New York (New Jersey) Regional Section of the Society for Applied Spectroscopy (NYSAS)

The 2018 December meeting of the New York (New Jersey) Regional Section of the Society for Applied Spectroscopy (NYSAS) was held on December 5, 2018 in at the Horiba Optical Spectroscopy center in Piscataway, New Jersey. The guest speaker was Curt Marcott, one of the selected tour speakers offered by the Society of Applied Spectroscopy for the 2018 program.

Curt Marcott is currently a Senior Partner at Light Light Solutions, a spectroscopic consulting firm. He is also an Affiliated Professor of Materials Science and Engineering at the University of Delaware and an Adjunct Professor in the Department of Chemistry and Biochemistry at Miami University in Oxford, Ohio. Prior to these roles, Dr. Marcott was a former research fellow at Procter & Gamble, the 2011 President of the Society for Applied Spectroscopy, and a member of the Editorial Advisory Board of Applied Spectroscopy.



Optical image of a defect in a 240 µm thick isotactic polypropylene (iPP) film. Optical photothermal IR spectra collected in reflection indicate the blue spectrum recorded from the defect region consists of less crystalline iPP than the red spectrum of iPP collected outside of the defect region.

During his talk, Curt discussed how spectral data provides fast, easy access to rich information regarding a molecules history and interaction with other molecules in a system. "The problem is that there is a significant amount of effort involved in interpretation" Curt further described three major limitations of mid-infrared that has limited its usefulness for solving real world problems:

(1)The spatial resolution is limited by diffraction physics to around 5 µm.

(2) Thin (or diluted) samples are needed in order to minimize IR band saturation.

(3)Reflection measurements off non-metallic samples typically produce weak signals with distorted spectral line shapes, unless performed using attenuated total reflection (ATR).

In this talk, Curt briefly discussed the evolution of mid-infrared spectroscopy over the past 50 years and focused the discussion on a new breakthrough approach that uses the photothermal infrared (PTIR) response of the sample while eliminating virtually all of the limitations discussed previously. The mIRage IR Microscope is an innovative new approach that bridges the gap between conventional IR microspectroscopy and nanoscale IR spectroscopy. The device uses a tunable pulsed mid-IR laser to induce a photothermal effect into a sample surface, which is subsequently measured using a visible probe laser focused on the sample. Applications of Mirage discussed included characterization of polymer layers in packaging, bone cross-sections, amide I and amide II orientation in spider silk, and wafer and nucleic acid analysis of epithelial cheek cells.

We had 28 people attend the meeting at Horiba and in addition, we extended an invitation to the New England Regional section of SAS to attend virtually. We had four additional members attend virtually. At the end of the presentation, Curt was presented with an SAS t-shirt, baseball hat, and NYSAS custom designed prism as a token of thanks from the group.

More information about NYSAS schedule of meetings can be found at www.nysas.org.

Contributed by Debbie Peru

In Memory of Kathryn Lee (1949–2019)

2005 Annual West Point Boat Ride Celebration To Celebrate the NYSAS Student Award recipients and Officer Recognition. Kathryn loved the boat ride and spent tremendous effort in promoting this award venue.

A devoted member of NYSAS, Kathryn Lee, 69, of Basking Ridge, New Jersey, has passed away.

Kathryn was a long time member of the New York Regional Section of the Society for Applied Spectroscopy. She served many roles including Chair of the section during three administrations (1999–2002, 2006–2007, and 2016–2017). Kathryn was a mentor and trusted colleague of everyone she worked with and demanded scientific excellence out of everyone. She provided leadership and guidance throughout her career to her friends, colleagues and companies and lifted the level of scientific achievement by all. She was considered a devoted and valued contributor by everyone.

Kathryn was a research analytical chemist with expertise, passion, and enthusiasm in the fields of vibrational spectroscopy (NIR, FT-IR, mid-IR, Raman), process analytical technology, method development, and quality by design. A successful technical project leader and supervisor supporting pharmaceutical, polymer, personal care, and food global new product development and launches, and quality improvement through innovative application of state-of-the-art analytical technologies including imaging, forensic analysis, air monitoring, and color content in inks. Her PhD education in organic chemistry provided insight to the chemistry of products and reactions, identification of foreign materials, and manufacturing and product problems. Recognized for leadership of cross-functional or multidiscipline teams, effective management of projects, teams, research initiatives, developing analytical technologies for plants, and professional organizations. She was recognized for her high throughput, work ethic, mentoring, training, and solving tough, complex problems.

The family received their relatives and friends for a visitation service at Gallaway and Crane Funeral Home, 101 South Finley Ave Basking Ridge, New Jersey, on Monday, January 14, 2019, from 5:00–8:00 PM The graveside service was held on Tuesday, January 15, 2019, from 11:30 AM to 12:00 PM at the Kensico Cemetery, 273 Lakeview Ave, Valhalla, New York. The Society for Applied Spectroscopy and Applied Spectroscopy send their sincerest condolences to Kathryn's family and friends.

Do you have something spectroscopy-related you want to discuss in the newsletter?
Or something that will help our membership such as career tips or application tips?
Please let us know by emailing xchen4@dow.com.

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