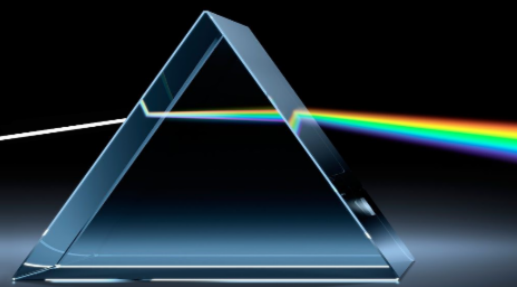




## SAS eNews



### SAS New York/New Jersey January 2021

Continuing with their 2020–2021 schedule speaker schedule, the New York and New Jersey section of SAS cordially invite SAS members to tune in for the 14 January 2021 meeting presented by officers John Wasylyk and Debbie Peru. Live stream the presentation using Join Microsoft Teams Meeting, 11:45 am login. For more information, go to our website at [www.nysas.org](http://www.nysas.org). Contact John Wasylyk for the Microsoft Teams meeting link at [john.wasylyk@bms.com](mailto:john.wasylyk@bms.com).

**Webinar Title:** FUNdamentals of Vibrational Spectroscopy

**Speakers:** John Wasylyk, Senior Principal Scientist, BMS, and Debbie Peru, Consultant DP Spectroscopy and Training, LLC

**Abstract:** In this presentation, John will provide an overview of basic vibration spectroscopy and several methods used in the pharmaceutical industry for process optimization and problem solving. Focus will be on the basic theory of three widely applied tools: mid-infrared, near-infrared, and Raman spectroscopies, and how the key fundamentals of vibrational spectroscopy enhance our process knowledge in the area of research and development. Specific examples provided will give an insight into which technique is best suited for answering specific analytical problems and then applied in a manufacturing environment for maintaining quality, enhancing productivity, and lessening environmental impact.

Debbie has over 35 years of experience in developing quantitative spectroscopy methods for pharmaceutical, consumer products, and specialty chemical industries. Her presentation will provide a 30 000-foot view of the method development process starting with an overview of the stages of method development and how to create an excellent training set of standards for calibrating your instrument. In this presentation Debbie will review the importance of reviewing the integrity of both the X block and Y block of data. This will lead into a discussion of the two main approaches for developing a calibration curve and the benefits of supervised modeling using variable selection methods.

#### Speaker Bios

**John Wasylyk** has a background in natural products chemistry, marine biology, and cryobiology. Over the last thirty years, focus has been on traditional analytical chemistry techniques and more recently on noninvasive vibration spectroscopy, including off-line and in-line (PAT) and in-line mass spectrometry. These PAT-related techniques support process development, quality by design (QbD) and increase process efficiency. In addition, the routine application of these techniques are "green" or "sustainable" analytical analyses in the pharmaceutical arena. Current focus is the application of vibrational spectroscopy to biopharmaceuticals and its application to downstream processing.

**Debbie Peru**, Pharmaceutical and Biopharmaceutical Section Co-Chair for SciX 2015–2020, current Chair for NY/NJ SAS

Debbie Peru is a consultant and owner of DP Spectroscopy and Training, LLC. She has extensive industrial experience in applied spectroscopy (near-infrared, mid-infrared, Raman, UV–Vis), data analysis, method development and is a certified facilitator for classroom and virtual training courses.

Debbie has 35 years of experience working in R&D, manufacturing, and quality assurance in diverse fields including oil recovery, specialty chemicals, pharmaceuticals, and consumer products. Her career has been highly focused on the area of applied spectroscopy for qualitative and quantitative analysis, quality assurance, problem solving, understanding ingredient interactions, manufacturing cost savings, and product testing.

Debbie is the current Secretary for the NY/NJ SAS and has been an officer of this organization for over 20 years.

Reminder of the currently scheduled speakers in 2021.

Date	Time	Speaker	Title	Affiliation
12-Nov	12 noon	Richard Hark	Scientific Investigation of Works of Art: Allowing the Objects Speak for Themselves	Yale Univ
10-Dec	12 noon	Jenni Briggs		
14-Jan	12 noon	Debbie Peru John Wasyluk	FUNdametals of Vibrational Spectroscopy?	
18-Feb	12 noon	Karen Faulds		Strathclyde Univ
18-Mar	12 noon	<sup>1</sup> Heinz Siesler <sup>2</sup> Marina deGea Neves	<sup>1</sup> Food authentication and classification using vibrational spectroscopy in tandem with chemometrics tools. Handheld Near-Infrared <sup>2</sup> Spectrometers: On-Site Quality Control and Protection against Product Counterfeiting	University of Duisburg-Essen

Contributed by Howard Mark, Officer of NY/NJ SAS, [hmark@nearinfrared.com](mailto:hmark@nearinfrared.com)

## Photonics Spectra Conference 2021

SAS's Mission Statement states, "The Society for Applied Spectroscopy is a nonprofit organization formed 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."

In order "to advance and disseminate knowledge and information concerning the art and science of spectroscopy", SAS set up an Education and Training Committee, chaired by Ellen Miseo. Recent efforts include working with conferences in which SAS participates (EAS, Pittcon, SciX) to publicize training courses, working with media partners (*Spectroscopy* magazine) to run spectroscopy webinars, and working with instrument companies (PerkinElmer) on training courses as well.

The latest partnership is with *Photonics Spectra*, which has organized an on-line conference scheduled for January 2021, featuring over 70 presentations discussing the latest trends, technologies, and applications under four tracks: Lasers, Optics, Spectroscopy, and Biomedical Imaging. SAS has programmed the *Spectroscopy* track for this conference, and you can find details of this at <https://events.photonics.com/Schedule.aspx?EID=1&TID=4>

Many of the speakers will be familiar to those who attend the SciX meeting, but SAS has also made an effort to include emerging technologies and companies, key application areas and state-of-the-art research from North America and Europe.

This inaugural *Photonics Spectra* Conference will take place online, 19–22 January 2021. Each day-long program will feature a keynote address and sessions that highlight the latest in applications, industry trends, and technological developments, along with expert insights from across academia and industry. The *Spectroscopy* track is on 21 January, and registration is free.

For more details visit: <https://events.photonics.com/Event.aspx?EID=1&OC=OM> and <https://events.photonics.com/Schedule.aspx?EID=1&OC=OM>

Contributed by Richard Crocombe, 2020 SAS President, [racrocombe@gmail.com](mailto:racrocombe@gmail.com)

## SciX 2020 Recap

Normally, our SAS SciX recap is full of photographs which capture the rich, dynamic mixture of technical excellence melded with social networking which has become a trademark of the SciX (formerly FACSS) conference. This year, we must give our due thanks to General Chair Linda Kidder Yarlott and Program Chair Mary Kate Donais, along with the rest of the 2020 SciX Planning Team for having the flexibility to bring SciX to the virtual domain with many live sessions in addition to several pre-recorded ones as well. What follows are SAS member recaps of several SAS-sponsored content. As Newsletter Editor, I appreciate the contributions provided here, as many of these social events I had to miss due to work obligations.

### Virtual SciX 2020 SAS Student Event

The Society for Applied Spectroscopy (SAS) organized the first ever virtual SAS Student Event during SciX 2020. The fact that the event was hosted virtually, provided the opportunity to open it to ALL students, not only SAS student members or conference participants. Many first-time conference attendees and people from overseas tuned in for this event. Over 30 participants in total joined us!

The SAS Student Event was a virtual "Street Smarts Game" through AdVenture Games Inc. It was a mix of trivia questions, specific tasks, skill shows, and lip-syncing. Participants had a chance to: network together, interact in a relaxed environment, and compete in games all of which helped end the conference on a fun note. We express our thanks to all participants for attending the event and to the Society for hosting the Student Event!



Below are some screen shots from our event, showing the diverse profile of talent and humor in our community of spectroscopy expertise!

Contributed by Ewelina Mistek-Morabito, SAS Student Representative, [emistek@albany.com](mailto:emistek@albany.com)



### Virtual SciX 2020 Speed Mentoring Event

The 2020 SciX speed mentoring took place on Monday, 12 October 2020. Jim Ryzak has been organizing speed mentoring at SciX for several years, and the last couple of years this event has been co-sponsored by SAS and The Coblenz Society. This year we had to go virtual due to COVID-19 and I really did not know what it would be like when I signed up for it as a mentor.

Now I can tell everyone that it was really great! The whole event occurred on a website a software call Hopin, which is an online venue for virtual events such as speed mentoring. After a quick review of rules, all mentors and mentees were automatically paired up by some algorithm and each mentor/mentee pair had seven minutes to talk before the algorithm switched automatically to the next pairing. The algorithm made sure that you would not see the same person twice. I talked to eight young researchers with a very diverse background (four male, four female, one from Kenya, one in their undergraduate studies, and seven currently in graduate school). Everyone had his or her own unique questions and interest. One unintended benefit of going virtual is that each mentor and mentee pair now has a quiet virtual room to themselves, which you would appreciate if you have been to the in-person session as the lively conversation within a room could be quite distracting background noise.

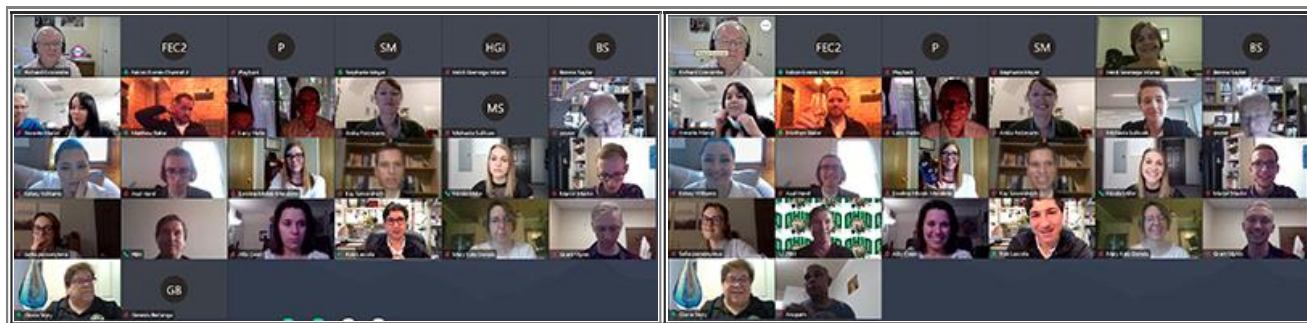


One thing I did not do well due to my unfamiliarity of the software platform was that I forgot to click the "Connect" button on the screen. When both participants click "Connect", the algorithm will exchange contact information. I was so absorbed in our conversation that I did not remember to click at all. So, for those students who want to connect with me, please pardon my forgetting to click "Connect!" You can reach me at my email address below.

Contributed by Shawn (Xiaoyun) Chen, [xchen4@dow.com](mailto:xchen4@dow.com)

## Virtual SciX 2020 SAS Awards Event

The SAS 2020 Awards session was well attended by many SAS attendees, and honored several folks who have contributed to SAS and spectroscopy as a whole. Pictured here are some of the folks who attended, and we appreciate those who provided due laud to those who have continued to trailblaze on behalf of SAS and science as a whole.



Details for awardees can be found at the following links:

<https://scixconference.org/SAS-NASLIBS-BEST-LIBS-PAPER>  
<https://scixconference.org/ELLIS-R-LIPPINCOTT-AWARD>  
<https://www.s-a-s.org/honorary-membership-award-2020/>  
<https://www.s-a-s.org/distinguished-service-award-2020/>  
<https://www.s-a-s.org/graduate-student-award-2020/>  
<https://www.s-a-s.org/undergrad-award-2020/>  
<https://www.s-a-s.org/atomic-student-awards-2020/>  
<https://www.s-a-s.org/meggiers-award-2020/>  
<https://www.s-a-s.org/strock-award-2020/>  
<https://www.s-a-s.org/poehlman-award-2020/>  
<https://www.s-a-s.org/fellow-award-2020/>

Contributed by Richard Crocombe and Bonnie Saylor, 2020 SAS President and SAS Executive Director

## Award Ceremony Remarks: Virtual 2020

Wednesday, 14 October 2020

Our first award is named in memory of longtime SAS employee Barbara Stull to recognize graduate students for their outstanding research in the area of spectroscopy. This year's awardee was **Ewelina Mistek-Morabito** from the University at Albany-SUNY.

Our next award is the SAS Undergraduate Student Award to recognize undergraduate students for their outstanding research in the area of spectroscopy. This year we had three awardees. First is **Nicole Miller**, South Dakota School of Mines and Technology. Our second award went to **Sofia Pozsonyiova**, Macalester College. Lastly, we have **Michaela Anne Sullivan** of the University of New Haven.

The next award was the SAS Atomic Section Student Award for outstanding research in atomic spectroscopy and we had four awardees. First, **Asaf Harel**, Rensselaer Polytechnic Institute. Second, **Marcel Macke**, University of Münster, Germany. Next **Anika Retzman**, University of Natural Resources and Life Sciences, Vienna, Austria. Finally, **Kelsey Williams**, State University of New York.

The Lester W. Strock Award is sponsored by the New England section of the Society. This year's award winner was **Dr. Heidi Goenaga-Infante**, Science Fellow at LGC (UK National Measurement Laboratory).

Our next award was the William F. Meggers Award, given each year to the author or authors of an outstanding paper published in Applied Spectroscopy. I'd like to take a moment to recognize former Applied Spectroscopy Editor-in-Chief **Dr. Peter Griffiths** for his generous sponsorship of the Meggers Award. His contribution has allowed us to provide the winner with a substantial monetary award. Thank you, Peter! This year we were pleased to recognize **Dr. Pavel Matousek** of Rutherford Appleton Laboratory and his colleagues **Kay Sowoidnich**, **Michael Towrie**, **Martin Maiwald**, and **Bernd Sumpf** for the paper published in 2019 in Applied Spectroscopy entitled "Shifted Excitation Raman Difference Spectroscopy with Charge-Shifting Charge-Coupled Device (CCD) Lock-In Detection". Dr. Kay Sowoidnich represented the group.

Our next award is very special to SAS as it recognizes the hard work and dedication of longtime SAS volunteers. This year, we were pleased to recognize two outstanding scientists as SAS Distinguished Service Members. Our first awardee is **Mary Kate Donais**. Mary Kate has made outstanding contributions to SAS at both the National and Local levels most notably serving as SAS President.

Our second Distinguished Service Award was sadly awarded posthumously to longtime SAS member **Paul Bourassa**. Paul passed away this past July before we could honor him for his dedicated service to SAS including as SAS Treasurer. Paul is deeply missed by all friends in SAS. His wife Linda was with us during the awards evening, and she asked that a slide with her comment be presented in lieu of speaking live.

The SAS/NASLIBS award, in its third year of presentation was given to the best paper published in Applied Spectroscopy in 2019 on the topic of Laser Induced Breakdown Spectroscopy. This year's award winners **Anupam Misra** and his colleagues **Tayro E. Acosta-Maeda**, **John N. Porter**, **Genesis Berlanga**, **Dalton Muchow**, **Shiv K. Sharma**, and **Brian Chee** were recognized for the paper, "A Two Components Approach for Long Range Remote Raman and Laser-Induced Breakdown (LIBS) Spectroscopy Using Low Laser Pulse Energy".

Our next award was the William J. Poehlman Award. This award is granted to the SAS Section that has contributed the most towards accomplishing the goals and ideals of the Society during the past year. This year we were thrilled to recognize the SAS **University of Puerto Rico-Mayaguez section** for maintaining a consistently high level of activity throughout the year and completing many projects which furthered the mission and goals of SAS. They are an outstanding group of young people who have not let unfortunate circumstances that befell the area stop them from success. **Annette Colon-Mercado** is chair of the section and is with us today.

Moving on, the next award was the Honorary Membership Award. This year we bestowed this prestigious award on two outstanding scientists. **Dr. Laurence A. Nafie** of Syracuse University and BioTools, Inc. received this honor for his many years of laying the theoretical and experimental groundwork for new fields of spectroscopy, specifically vibrational circular dichroism (VCD), vibrational optical activity (VOA) and Raman optical activity (ROA), and the development of multiple commercial instruments.

Our second Honorary Membership Awardee was **Dr. Yukihiro Ozaki** of Kwansai Gakuin University in Japan. Dr. Ozaki was recognized for his pioneering work in adapting molecular spectroscopy to biomedical applications, his contributions to molecular spectroscopy, and his strong advocacy for spectroscopy.

Each year SAS recognizes several individual members for their service to the Society and for their exceptional contributions to spectroscopy. This recognition involves the designation of a number of Fellows of the Society. This year we were pleased to recognize three of our newest Fellows. **Dr. Matthew Baker**, University of Strathclyde; **Dr. J. Chance Carter**, Lawrence Livermore National Laboratory; and **Dr. Peter Harrington**, Ohio State University. Thank you to all our Fellows for your outstanding science and contributions to SAS.

The SAS poster session judges were hard at work reviewing student poster entries in the annual SAS Student Poster Session Competition. Final selections were made yesterday, and I am pleased to announce this year's poster award winners, each of whom earned a spot in a Groundbreaking Research Virtual Symposium that was held on 28 October 28 at 1:00 PM EDT. This virtual symposium was jointly presented by Metrohm USA and the Society for Applied Spectroscopy. Congratulations to the following: **Christopher Karim Akhgar**, Technische Universität Wien; **Allix Coon**, University at Albany SUNY; **Allison Jacobsen**, University of Utah; and **Grant Myres**, University of Utah.

*Richard Crocombe, Society for Applied Spectroscopy President 2020*

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## **GOLD MEDAL AWARD: The SOCIETY for APPLIED SPECTROSCOPY — NEW YORK/NEW JERSEY Regional Section**

This coveted award was established in 1952 to recognize outstanding contributions to the field of Applied Spectroscopy. The Gold Medal will be presented at a special award symposium, arranged in honor of the awardee, at the Eastern Analytical Symposium.

### **ANNOUNCEMENT**

Nominations are being sought for the 2021 Gold Medal Award of the New York/New Jersey Regional Section of the Society for Applied Spectroscopy. A nominating letter describing the nominee's specific accomplishments should be submitted along with a biographical sketch and list of publications by January 15, 2021. Please e-mail all materials as well as questions and inquiries to Dana Garcia at [dana.garcia@arkema.com](mailto:dana.garcia@arkema.com). For more information go to: [www.nysas.org](http://www.nysas.org)

**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 [luisaprofeta@gmail.com](mailto:luisaprofeta@gmail.com).**

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