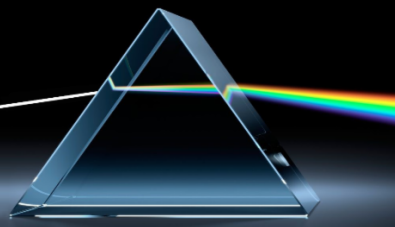




SAS eNews



Upcoming Events of Interest to SAS Members

Eastern Analytical Symposium (EAS): 15-17 November 2021



Eastern Analytical Symposium and Exposition will be an IN-PERSON meeting at the Crowne Plaza Conference Center in Plainsboro, New Jersey, 15–17 November 2021. Discounted registration rates are available until Oct. 15th on our Full Conferee Registration and Short Courses.

Several SAS local sections are sponsors of EAS (Delaware Valley, New England, New York/New Jersey) and play an active part in the conference, via Awards and Symposia. Fran Adar (Horiba Scientific) is this year's recipient of the SAS New York/New Jersey (SAS NY/NJ) Gold Medal Award. Her award will be presented at the Award Symposium on the Wednesday morning of the conference.

Many individual SAS members are active in EAS, including Jim Rydzak and Brooke Kammrath who are the program chairs for 2021, and Brandye Smith Goettler, who is the 2021 exposition chair. In addition, several of the spectroscopy short courses will be taught by SAS members Jim Rydzak, Richard Crocombe and Ellen Miseo.

We are proud to announce the following technical sessions and short courses in collaboration with SAS; We hope you will join us to hear these stellar presentations and/or attend a short course! We appreciate your support!

Monday, 15 November

Handheld Spectrometers 1: Safety and Quality Control, sponsored by Rigaku Analytical Devices, Inc. Chair: Suzanne Schreyer, Rigaku Analytical Devices

9:00am	<i>Use of the Progeny HH Raman for Identity and Polymorphic Form Testing of Lyndra Therapeutics Novel Extended-Release Dosage Form</i> , Michelle O'Connor, Lyndra Therapeutics
9:30am	<i>Utilization of Portable Diffuse Reflectance and Raman Spectrometers to Characterize Pharmaceuticals for Public Health Programs</i> , <u>Christopher Harmon</u> , Matthew Eady, Ed Bethea, Steve Sortijas, David Jenkins, FHI360
10:00am	Break
10:30am	<i>Portable Sensor and Spectroscopic Devices for Evaluating Seafood Decomposition</i> , <u>Betsy Jean Yakes</u> , United States Food and Drug Administration
11:00am	<i>Safety and Security Dependence on Ion Mobility Spectrometry and Other Portable Spectrometers</i> , <u>Pauline Leary</u> , Federal Resources

Handheld Spectrometers II: Cultural Heritage, XRF and LIBS, sponsored by Rigaku Analytical

Devices, Inc.

Chair: Suzanne Schreyer, Rigaku Analytical Devices, Richard Crocombe, Crocombe Spectroscopic Consulting

1:30pm	<i>Handheld LIBS and XRF: Friends or Foes?</i> , <u>Stanislaw Piorek</u> , Rigaku Analytical Devices
2:00pm	<i>Integration of Portable Spectroscopy into Undergraduate Teaching and Research</i> , <u>Mary Kate Donais</u> , Saint Anselm College
2:30pm	<i>Taking the Lab to the Field - The Trials and Tribulations of Performing in-Field XRF and LIBS Analysis</i> , <u>Debbie Griggs</u> , Rigaku Analytical Devices
3:00pm	<i>State-of-the-Art Portable XRF in the Archaeological Sciences</i> , <u>Ellery Frahm</u> , Yale University

Tuesday, 16 November

Applications of Atomic Spectroscopy: From ICP to XRF and Everything in Between

Chair: Lydia Breckenridge, Bristol Myers Squibb

1:30am	<i>Exciting Moments of Science in ICP-OES</i> , <u>Erica Cahoon</u> , PerkinElmer
2:00pm	<i>Pushing the Boundaries of Pharmaceutical XRF</i> , <u>Sharla Wood</u> , Lydia Breckenridge, Bristol Myers Squibb
2:30pm	<i>Looking for Laser-Induced Breakdown Spectroscopy Signatures of Cancers and Neurological in Biomedical Fluids: Progress and Challenges</i> , <u>Noureddine Melikechi</u> , University of Massachusetts-Lowell
3:00pm	<i>Exposure to Geogenic Arsenic by Ancient Andeans: Determination of Hair Arsenic in Mummies Using LA-ICP-MS</i> , <u>Dulasiri Amarasiwardena</u> , Moheeb Ahmed, Hampshire College, Bernardo Arriaza, University of Tarapacá

Spectrometric Calibration and Applications

Chair: Shirley Fischer-Drowos, Widener University

1:30pm	<i>Automating Calibrations for Optical Spectroscopy</i> , <u>Brian Rohrback</u> , Infometrix, Inc.
2:00pm	<i>Field Analysis of Low-Dose Fentanyl Mixtures by Portable IR</i> , <u>Kaitlin Farrell</u> , Brooke W. Kammrath, Koby Kizzire, University of New Haven, Anthony DiDomenico, David W. Schiering, RedWave Technology, Pauline E. Leary, Federal Resources
2:30pm	<i>Targeted Raman Analysis of Nasal Sprays</i> , <u>Sarah Shidler</u> , Lucy Grainger, Tim Prusnick, Renishaw Inc.
3:00pm	<i>UVVIS Simplification in Regulated Environments</i> , <u>Neil Schaefer</u> , Mettler Toledo

Wednesday, 17 November

New York/New Jersey Sections of the Society for Applied Spectroscopy Gold Medal Award

Honoring: Fran Adar, HORIBA Scientific

Chairs: Dana Garcia, Arkema, Inc., Deborah Peru, DP Spectroscopy and Training

9:00am	<i>Still Looking for Ways to Make Raman Spectroscopy Relevant</i> , Fran Adar, HORIBA Scientific
9:30am	<i>Extracting More Information from Spectra Using Two-Dimensional Correlation Analysis</i> , Isao Noda, University of Delaware
10:00am	<i>Break</i>
10:30am	<i>Forensic Sample Analysis Using Optical Microscopy and Raman Spectroscopy</i> , Mark

	Witkowski, United States Food and Drug Administration
11:00am	<i>Application of Raman Spectroscopy for Advanced Materials</i> , Sergey Mamedov, HORIBA Scientific
PAT: Continuous and Flow Chemistry Analysis Chair: James Rydzak Specere Consulting	
9:00am	<i>On-Line UHPLC as PAT for Continuous Process Development and Manufacturing</i> , Grace Russell, Snapdragon Chemistry
9:30am	<i>Road to Laboratory of the Future with Integration of PAT into Modular Flow Platform</i> , Frederic Buono, Boehringer-Ingelheim Pharmaceuticals
10:00am	<i>Break</i>
10:15am	<i>Deep Dive into Optimization of PAT for a Continuous Direct Compression Platform</i> , Elyse DiMaso, Dongsheng Bu, Kevin Macias, Bristol Myers Squibb
10:45am	<i>Sampling Optimization for Blend Monitoring of a Low Dose Formulation in a Tablet Press Feed Frame Using Spatially Resolved Near-Infrared Spectroscopy</i> , Andres Roman, Yukteshwar Baranwal, Jingzhe Li, Rohit Ramachandran, Ravendra Singh, Fernando Muzzio, Douglas Hausner, Rutgers University, Jenny Vargas, Benoît Igne, Simon Bate, GlaxoSmithKline, Davinia Brouckaert, Fabien Chauchard, Indatech
Optical Technologies for Disease Screening and Diagnostics Session Chair: Fay Nicolson, Dana-Farber Cancer Institute	
9:00am	<i>SERS-Based Biosensing at the Point-of-Care</i> , Samuel Mabbott, Texas AandM University
9:30am	<i>Targeting the Oncogene HPV16 E7 with Affibody Molecules in Head and Neck Cancer</i> , Sheryl Roberts, Cien Huang, Tara Viray, Thomas Reiner, Kishore Naga Vara Pillarsetty, Memorial Sloan Kettering Cancer Center
10:00am	<i>Break</i>
10:15am	<i>Stimulated Raman Scattering (SRS) Imaging: The Next Frontier of Light Microscopy</i> , Wei Min, Columbia University
10:45am	<i>Phosphorescent Metalloporphyrins for Monitoring Skin Oxygenation during Hyaluronic Acid Induced Vascular Occlusion</i> , Haley Marks, Joshua Glahn, Juan Pedro Cascales, Xiaolei Li, Michael Wang-Evers, Emmanuel Roussakis, Conor Evans, Dieter Manstein, Massachusetts General Hospital Harvard Medical School
PAT in the Biopharmaceutical Industry Chair: Edita Botonjic, Pall	
1:15pm	<i>Non-Invasive, Continuous, Quantitative Detection of Powder Level, Mass Holdup and Moisture Fraction in Pharmaceutical GMP Vessels</i> , William Blincoe, Jasdeep Mandur, Anthony Tantuccio, Robert Meyer, Merck and Co., Inc., Michel Louge, Cornell University
1:45pm	Edita Botonjic, Pall
2:15pm	<i>In-Situ Machine Learning and Chemical Imaging to Elucidate Enzyme Immobilization for Biocatalysis</i> , Nicole Ralbovsky, Joseph Smith, Merck and Co., Inc.

Short Courses: A brief description is listed; click on course title for more details

- [Process Analytical Technology: Out of the Lab and into the Line](#) (14 November); **James Rydzak**, Specere Consulting

Process analytical technology (PAT) is a tool for product development, scale up and manufacturing of any chemical product. In this course, you will learn about the benefits of in-process monitoring, how to justify and plan the analysis implementation. Different process analytical tools will be discussed, how to implement them

and how to choose between them for your application. How to use PAT to save time and money, improve your green scores in development and manufacturing become proficient at PAT will be discussed. Various applications, from various industries will be used to explain concepts and provide examples of implementation.

- [Portable Spectroscopy](#) (16 November); **Richard Crocombe**, Crocombe Spectroscopic Consulting, and Pauline Leary, Federal Resources

This course will cover the capabilities of modern portable spectrometers covering elemental spectroscopy (X-ray fluorescence and laser induced breakdown spectroscopy), molecular/optical (infrared and Raman), and mass spec/molecular (ion mobility and gas chromatography-mass spectroscopy). Advantages, limitations, and applications of each method will be detailed. The course also covers the most recent developments in the field, including the use of smartphones for spectroscopy, very low-cost devices marketed directly to the public and the incorporation of spectrometers in consumer products. This is a "hands-on" course, including instrument demonstrations and the opportunity to use them.

- [Problems with FT-IR Spectra and How to Avoid Them](#) (17 November); **Ellen Miseo**, TeakOrigins, and Jenni Briggs, Pike Technologies

Users of FT-IR spectrometers may have received little or no formal training in spectroscopy and therefore cannot distinguish between "good" and "bad" spectra. In this course, we will show many of the problems that are commonly encountered with FT-IR spectra measured by inexperienced (and often experienced!) users and show how to avoid them. Problems can appear from the instrument, the sample accessory and/or presentation. Since the bulk of the samples that are currently analyzed are done by Attenuated Total Reflection, we will cover it in detail. We will also address common problems associated with other accessories. This year we will also be including a "tricks of the trade" component to the class. We also will have a hands-on component where the principles we are discussing will be demonstrated on a commercial instrument including accessory sampling errors and improper data processing.

Poster Sessions: Our list of Spectroscopy related poster presentations can be found in our [Preliminary Program](#).

Exposition: [Click here](#) to see the growing list of exhibitors, including SAS NY/NJ and the Coblentz Society!

For more information on EAS and what is planned for our 60th Anniversary, visit our website: [EAS.org](#)

NY/NJ SAS Monthly Lecture Series

18 November 2021 at 12:00 pm EST, 9:00 am PST, 5:00 pm GMT

The NY/NJ SAS section invites all to the next Fall Series lecture given by Professor Michael George of the University of Nottingham. He will be speaking on the topic of "Steady State and Time-Resolved Vibration Spectroscopy in Synthesis, Mechanisms and Manufacturing: From Picoseconds to Tonnes".

Join Zoom Meeting

<https://us02web.zoom.us/j/86289707567?pwd=cHdRQ0RZMUU3SjNvVTRPZFhoUUg4UT09>

Meeting ID: 862 8970 7567

Passcode: 257017

SAS Early Career Interest Group (ECIG) Upcoming Events

The SAS ECIG encourages any members to keep an eye on your email inbox for the next SAS ECIG events:

- Webinar: "So Many Opportunities - Standard and Alternative Career Paths for Early Career Spectroscopists" in collaboration with Spectroscopy Magazine.
- Pittcon 2022: An informal discussion aimed at early career scientists on "Tips and Tricks for Marketing Yourself for a Successful Career in Spectroscopy"

We are always looking for more committee members. If you are interested in getting involved, please email fay_nicolson@dfci.harvard.edu for more information!

Call for Volunteers

The SAS Marketing Committee is looking for volunteers with interests in science journalism, communications, and graphics to help with several new initiatives. Volunteers will get resume worthy experience writing articles, designing content, and implementing social media and email marketing campaigns. We are also looking for volunteers to help with the SAS Newsletter as well. If you are interested please email marketing@s-a-s.org.

SciX Recap: Part 1

In long anticipation, not quite 500 eager, masked scientists converged in Providence, Rhode Island on 26 September 2021 for the opening talks of SciX 2021 at the Rhode Island Convention Center. The gleeful moment we all had waited for since Pittcon 2020 had arrived. The masked smiles (odd to consider that most of us can now tell if someone is smiling under a face mask) seen throughout the conference areas gave away the enjoyment of so many colleagues reconvening to take part in symposia, visiting the exhibition hall and of course, networking events. The conference still was not quite the same, as many board or committee meetings had been cancelled or postponed to after SciX, and several exhibitors, unfortunately, were not able to make the trip to Rhode Island. This recap focuses on the awards presented throughout the conference and networking, and part two will focus on the technical overviews.

SAS Student Poster Session

The Sunday evening SAS Student Poster Session immediately following the keynote speaker David Walt provided an engaging venue for young scientists to present their research, receive feedback and encouragement. The assembly of judges this year had their hands full with many outstanding graduate students, undergraduates, and, for the first time (to my knowledge!), high school students. At the end of the mixer, SAS honored several student awardees. Those who attended SciX received their awards in person, and presented three student poster awards—two going to graduate students and one to one of the excellent high school students who graced the meeting with their presence.



Top left: A student shares her work with others during the poster session and mixer. Top Right: FACSS Student Award recipient, Vanessa Cupil-Garcia. Bottom Left: Tomas Hirschfeld Scholar, Nicolás Morato. Bottom Right: Tomas Hirschfeld Scholar, Grant Myres.

Top left: Laurin Lux receives a SAS Travel Award and SAS Undergraduate Student Award. Top Right: Robert Spires receives a SAS Undergraduate Award. Bottom: SAS Sunday Poster Session winners (left to right): Ashwin Rao (Air Force Institute of Technology), Christin Leckland (South Dakota School of Mines and Technology) and Max Vallone (Ransom Everglades High School)



SAS was thrilled that these six high school students from Ransom Everglades High School (based in Florida) made the trip to SciX 2021 to present their various projects on LIBS detection of trace metals in sea water. We hope to see them back at SciX as undergraduates!

SAS Early Career Events

Contributed by Fay Nicolson

The SAS Early Career Interest Group (ECIG) held their first webinar on 14 September 2021 on Effective Career Development Through Successful Mentor and Network Relationships. The webinar focused on informing attendees on how to grow and self-manage their professional network, and as well as how to manage mentor relationships. Thanks to our sponsors HORIBA Scientific and Metrohm USA, our speakers John Dwan and Maggie Becker, and Spectroscopy Magazine for hosting the event, and to everyone who participated in the webinar! Missed it? Watch the on demand recording here: [Effective Career Development through Successful Mentor and Network Relationships \(on24.com\)](https://on24.com).

The SAS ECIG also had their first in-person event at SciX 2021! The event, held at the Eddy Bar, was a great success and attended by over 50 early career scientists and industry leaders. SAS ECIG would like to thank HORIBA Scientific, Metrohm USA, and Spectroscopy Magazine for sponsoring our event as well as the Eddy Bar for their great hospitality!



Our Early Career Chair, with the team from one of our event sponsors, HORIBA at the SciX Early Career Event in Providence. Left to right — Andrew Whitley, 2022 SAS President, Bridget O'Donnell, Fay Nicolson, ECIG Chair, Michael Oweimrin and Sean Travers. Thanks to all our event sponsors — HORIBA, Metrohm and Spectroscopy Magazine.



View of the Eddy Bar in Providence during the SAS Early Career Event at SciX at which we had over 50 guests. A fun time was had by all!

The SAS ECIG also celebrated the recipients of our SAS Early Career Travel Grant at SciX 2021. Congratulations again to Dr. Julia Gala de Pablo and Dr. Rupali Mankar! Each awardee received \$750 to support the cost of registration, travel, and/or accommodation at the SciX conference, as well as a one-year SAS ECIG membership.



Dr. Julia Gala de Pablo, recipient of one of our two ECIG travel awards, receiving her check from ECIG Chair, Fay Nicolson at the SAS Awards Ceremony at SciX.

SAS Student Event

The traditional SAS Student Event was hosted at Union Station Brewery on Monday evening following the exhibit opening mixer. Food, trivia, and libations were enjoyed by all as the trivia match came down to a "sudden death" match between the two of three teams who had tied.



SAS student members filled up the majority of the front end of Union Station Brewery, joined by a scattering of senior SAS members to provide mentorship and some necessary aged wisdom during trivia.

SAS 2021 Award Session and Wine and Cheese Reception

The 2021 SAS Award session recognized a wide variety of researchers and students for their outstanding scientific merits. During the session, time to honor several recipients of the 2020 awards who had not been able to be recognized in person at the virtual SciX 2020 meeting was given too. Current SAS President Karl Booksh and 2022 incoming SAS President Andrew Whitley presented the awards to recipients who were present. For all details regarding all awardees, both present at SciX 2021 and not, please see the SAS website: https://www.sas.org/userfiles/uploads/SAS_Awards_2021.pdf

Following the awards session, many SAS members adjourned to the Wine and Cheese Reception where Rhode Island sourced wine and beer was served, alongside several hors d'oeuvres featuring local seafood.



Top Left to Right: 2020 SAS Awardees, Gloria Story and Mary Kate Donais, 2021 Barbara Stull Graduate Student Awardee, Jeremy Schultz, 2021 SAS Atomic Technical Section Awardee, Kevin Finch.



Top Left to Right: 2021 SAS President's Awardee, SAS Parliamentarian Jay Kitt, 2021 Early Career Travel Grantee, Julia Gala de Pablo

Bottom Left to Right: 2021 SAS Service Awardees, Ewelina Mistek-Morabito and Richard Crocombe, and 2021 SAS Fellows Awardees Ellen Miseo and Lawrence Ziegler.



SAS student members from Zac Schultz's research group (The Ohio State University) enjoy the wine at the Wine and Cheese reception.

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.

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