

SOCIETY FOR APPLIED hv SPECTROSCOPY

OCTOBER 2024 NEWSLETTER



Why Did SAS Say Goodbye to Its Iconic Logo?

By now, you've likely noticed our new SAS logo, which we proudly launched in May alongside our revamped website. We understand that the old logo held a special place in many of your hearts, and the decision to change it was not taken lightly. So, why did we embark on this rebranding journey? With our move to Capitol Hill Management Services (CHMS), we recognized the need to modernize our visual identity to stay relevant and engaging to our current members, potential new members, and Corporate Partners and Advertisers.

The new logo is the most visible sign of the changes happening within the SAS administration, all aimed at enabling us to better fulfill the Society's mission. Rest assured, many hours were dedicated to the design process, with numerous versions considered, including some directly inspired by the Rowland Circle spectrograph, which the old logo mimics. Our guiding principles for the new design were that it must be easily readable, feature eye-catching colors, be suitable for print and social media, and be spectroscopically agnostic.



(Left to right) SAS icon logo for emails and social media as well as the SAS primary logo for printing

This last point was particularly critical, as our members work with a wide array of spectroscopic techniques, from atomic emission lines and UV-Vis-NIR spectra to Raman and FTIR peaks. Our new logo needed to broadly convey the essence of spectroscopy to our members and anyone who encounters the Society.

As for the old logo, which was designed by Rockwell, III, a previous SAS president, it will be gradually phased out throughout the remainder of 2024. All new sales, marketing, and membership materials will feature the new logo and adhere to our updated branding guidelines. We're excited to unveil a new tradeshow booth and SAS swag at SciX, and in 2025, we'll release refreshed versions of both Applied Spectroscopy and Practica that incorporate the new logo throughout.

In our next newsletter, we'll delve into some of the other ways SAS is evolving and becoming more professional, just like all of us in the field.

Adam Hopkins



Attend SciX 2024 in Raleigh, NC 20 - 25 October

[SciX 2024](#)—a comprehensive all-inclusive meeting where the newest, presenting the most innovative research in the analytical sciences. Socialize, learn, and network with multiple days of oral presentations, short courses, two-day career fair, poster sessions, and SciX technical expo coupled with many social events to build your network.

Don't miss out on the opportunity to be a part of the cutting-edge discussions and discoveries at SciX 2024! Mark your calendars and secure your spot today! For more information and to register, visit our website [here](#).

Benefits to Attendees:

Network: Connect with professionals in the spectroscopy and analytical chemistry community.

Exhibit: Talk with companies showcasing their innovative technologies.

Learn: Attend short courses and poster sessions.

Program: Multiple days with parallel tracks of oral presentations.

Professional & Career Development: Attend professional and career development talks.

Prospective Employers: Meet with companies actively hiring in your field. The 2024 SciX Career Fair will be open to the public.

Early Career Session at SciX

The Early Career Interest Group is again hosting a special session at SciX. This year, the session is titled "Showcasing Career Paths in the Spectroscopic Sciences". The session will consist of four talks and a panel session. Sara Mosca will speak first about opportunities at the UK Research and Innovation National Laboratories. Cyril Soliman will present a talk on his experiences working in industry. Alexis Weber will speak about the transition from graduate school to working as the chief operations officer (COO) of a small startup company. Lastly, Chelsea Goetzman will discuss what it is like to work as a postdoctoral researcher at Savannah River National Laboratory.

The session will be held on Monday, 21 October starting at 1:30 PM, in room 303 of the Convention center. Co-chairs for this session are Fay Nicolson and Sam Mabbott. Please join us and support all early career scientists who are speaking at this year's SciX!

Anthony Stender, Early Career Interest Group

Process Analytical Technology Panel at SciX

As part of the Process Analytical Technology (PAT) section at SciX 2024, there will be a discussion panel at the end of the 24PAT04 session, “In Situ Spectroscopy for Industrial R&D”, on Wednesday morning, 23 October. The panel will feature experts from leading companies and institutions, including Katherine Bakeev (Timegate), Michael Bishop (Corteva), Neal Gallagher (Eigenvector), Dom Hebrault (Veranova), Shawn Chen (Dow) and Mark Rickard (DuPont), providing their perspectives on topics such as PAT technology, best practices, current challenges, and future developments. Come prepared with questions and join us for an exciting discussion!

Mark Rickard and Shawn Chen

Speed Mentoring Event at SciX by the Coblenz Society

The Coblenz Society, in partnership with the Society of Applied Spectroscopy, will present a Speed Mentoring session at SciX 2024. It is a fun, fast paced, facilitator led session that enables a structured interaction with a dozen or more spectroscopists from various industries, academia, and government labs that enables the mentees to get an understanding of what it's like to work in those areas. These interactions can be the basis of an ongoing mentoring relationship, if that is of interest, and is a wonderful networking opportunity for job hunting or just getting a better understanding of life as a spectroscopist after academia. The session will be held from 12:00-1:30 PM in Ballroom B at the convention center. Please sign up at the Coblenz website [here](#). Lunches will be provided with preference to those who sign up prior to the event.

Jim Rydzak

SciX 2024 Speed Mentoring

**Monday Oct. 21 12-1:30
Ballroom B**

<https://members.coblentz.org/Events>

Organized by the Coblentz Society



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FACSS PRESENTS
SCIX2024
The Great Scientific eXchange

20-25
OCTOBER
2024



RALEIGH
North Carolina

Early Career Travel Grant Winners!

The Early Career Interest Group is pleased to announce the winners of this year's Early Career Travel Grants for SciX 2024: Yeran Bai and Jay Kitt.

Yeran Bai's talk is titled "Exploring Metabolism: Advanced Insights from Photothermal Infrared Microscopy in Biomedical Research". She will be speaking on Tuesday afternoon in Room 301A of the convention center. Yeran will also be joining the University of Arizona in January 2025 as an Assistant Professor in the Wyant College of Optical Sciences.

Jay Kitt's presentation is titled "Self-Modeling Curve Resolution Analysis of Raman Spectra from Mixed Deuterated and Protioated Phospholipid Membranes Reveals Isotopically-Segregated Lipid Domans". Jay will be speaking on Tuesday morning in room 305B of the convention center . He is currently working as a Research Assistant Professor at the University of Utah.

For further details about our speakers and to see their abstracts, check out ECIG's [webpage](#).

Anthony Stender

Looking for Spectroscopy Engagement Submissions!

Have you used your spectroscopy skills in unique ways outside the laboratory? We want to hear from you!


We are seeking stories that showcase the creativity and innovation of SAS members. Whether you have utilized spectroscopy skills in crafts, photography, culinary arts, or community outreach we invite you to share your experiences and insights.

Provide a brief explanation of your application. What are some implications of your work? Please keep your submissions between 300-1000 words and include any helpful illustrations.

Selected submissions will be featured in upcoming SAS Newsletters, providing a platform to showcase your passion to the SAS community. This is a fantastic opportunity to share your expertise, gain recognition, and contribute to the advancement of spectroscopy.

Submit your entries to exdir@s-a-s.org with the subject line "Spectroscopy Engagement." We look forward to your contributions!

John Bobiak




November 18-20, 2024
EASTERN ANALYTICAL SYMPOSIUM & EXPOSITION
Partners in Problem Solving
Crowne Plaza Princeton Conference Center, Plainsboro, NJ
TECHNICAL PROGRAM • EXPOSITION • CAREER DEVELOPMENT OPPORTUNITIES


E24-09: Introduction to Quantitative Spectroscopy for Near Infrared and Raman Instrumentation

Short Course Information


This course includes classroom lessons and live software demonstrations using near-infrared and Raman data sets. Participants can observe and learn how to develop and validate quantitative methods. Topics include; types of sampling and measurement errors, procedure design, wavelength selection strategies, spectral preprocessing, quantitative techniques, and lifecycle management



Instructor:
Deborah Peru

 **DATE: Sunday, November 17, 2024**

FOR MORE INFORMATION & TO REGISTER:

 **www.eas.org**

Winter Conference on Plasma Spectrochemistry to be held 12 - 17 January 2026

The next Winter Conference on Plasma Spectrochemistry will be held at the El Conquistador Tucson resort in Tucson, Arizona from 12 - 17 January 2026. The Winter Conference was founded by Prof. Ramon Barnes in 1980 and has operated as the premier venue in the field of plasma spectrochemistry. The conference will continue in 2026 under the leadership of the IASA going

forward. The conference site is familiar to past conference attendees, and we hope to have a similar wonderful experience, with warm weather and great science! A call for papers will be appearing in November 2024. Look for updates on program focus areas, short course offerings, special lecturers, and conference events at the conference website hosted [here](#).

Steven Ray, 2024 SAS President-Elect

A New Atomic Spectrometry Society is Formed: Welcome the IASA!

The International Atomic Spectrometry Associate (IASA) is an international membership society formed to advance atomic spectrometry scholarship, education, advocacy, and innovation. The IASA was formed in August 2024 with the intent of operating as an Society of Applied Spectroscopy (SAS) Affiliate Society. The current IASA executive leadership is:

President: C. Derrick Quarles Jr., PhD, Elemental Scientific, Omaha, Nebraska

Treasurer: Steven J. Ray, PhD, University at Buffalo, Buffalo, New York

Vice President: Jacob (Jake) Shelley, PhD, Rensselaer Polytechnic Institute, Troy, New York

Associate Director: Benjamin T. Manard, PhD, Oak Ridge National Laboratory, Oak Ridge, Tennessee

Secretary: Mary Kate Donais, PhD, Saint Anselm College, Manchester, New Hampshire

Leadership is currently seeking volunteers for positions within the society. The IASA has assumed operating responsibility for the biennial Winter Conference on Plasma Spectrochemistry, as well as the popular Plasmachem-L, XRF-L, and TIMS-L email list-server support communities. If you are interested in joining the IASA, interested in joining these list-server lists, or want to access the latest information on current activities, please see the IASA [webpage](#).

Steven Ray, 2024 SAS President-Elect

Lunar *albedo*

During the last few days, have you looked at the moon? Besides the beauty of this celestial body, have you wondered what can we learn from its intense silver radiance, i.e., its *albedo*?

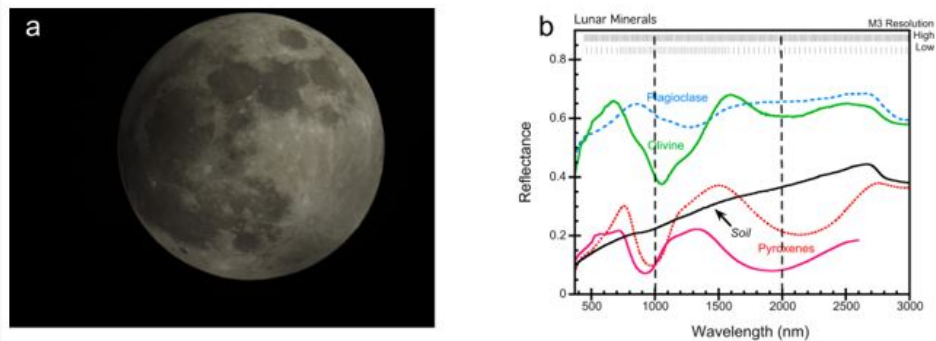
Lunar *albedo* refers to how much light the Moon's surface reflects. Studying this reflectivity can reveal important information about the Moon's geology and surface composition.

Measuring lunar *albedo* involves several techniques, primarily using remote sensing with spacecraft equipped with cameras and spectrometers, such as the Lunar Reconnaissance Orbiter and Chandrayaan missions, which capture images and measure sunlight reflected from the Moon's surface. Photometry assesses brightness at different wavelengths to calculate *albedo* values, while mapping creates visual representations of reflectivity variations across the lunar landscape. Ground-based telescopes can also provide

measurements, although with less detail than space-based instruments. Future lunar missions will conduct in situ measurements, allowing for direct analysis of reflectivity and surface composition. Together, these methods enhance our understanding of the Moon's geology and surface characteristics.

Investigating lunar *albedo* is important for understanding the Moon's surface composition, as different minerals reflect light uniquely, helping scientists identify rock types like basalt and anorthosite. *Albedo* variations also reveal geological history, indicating past volcanic activity and impact events, and allowing researchers to reconstruct the Moon's timeline. Additionally, *albedo* measurements can identify potential resources, such as water ice, crucial for future exploration and human settlement. *Albedo* influences the Moon's temperature distribution, impacting thermal dynamics essential for mission planning. Furthermore, studying lunar *albedo* enhances comparative planetology, offering insights into how different planetary surfaces evolve. Thus, measuring lunar *albedo* is vital for piecing together the Moon's past and guiding future exploration efforts.

As we continue to investigate the Moon's silver radiance, we pave the way for deeper discoveries that could reshape our understanding of planetary evolution and our place in the cosmos.



(Left to right) The Moon and reflectance spectra of lunar samples measured in an Earth-based laboratory.

*Photo courtesy of Silvia Pérez-Gallardo Dupont

**Spectra adapted from <https://doi.org/10.1029/2010JE003727>

Alejandro de La Cadena Perez Gallardo, Newsletter Committee

News from the SAS Office

- **2024 SAS Elections will be held October 1-30, 2024. All current members received a voting link on October 1. Be sure your membership is current! You can view all of the nominees for President-Elect and Governing Board Delegates [here](#).**
- **SAS Members! If you changed jobs and email address, please reach out to the Executive Director, Angela Gordon, at exdir@s-a-s.org to update your information. You don't want to miss out on SAS news!**

