

Coblentz Society Speed Mentoring: 6 April 2022

The Coblentz Society is providing a virtual speed mentoring event on 6 April 2022, from 11:45am-1:30pm EDT (8:45am-10:30am PDT) for anyone looking for mentorship or for those seeking to provide mentorship to others. Find out what it's like to work in different industrial, academic, and government areas. Mentors will offer views on what it is like to work in their business and answer questions from the mentees.

Reviews of our live mentoring events have been very positive, and we hope that the virtual forum allows more people to be engaged. Take advantage of this virtual event!

Registration as a mentee and mentor is completely free, but there will be a cap on the number of people who will participate so <u>register</u> soon here.

For questions or ideas please email: mentoring@coblentz.org



2022 Photonics Spectra Spectroscopy Conference: 12-13 April 2022



The publishers of *Photonics Spectra*, the Society of Applied Spectroscopy, and the Coblentz Society invite you to attend a free virtual conference spanning two days. The event will feature webinar presentations discussing the latest trends, technologies, and applications in spectroscopy under four tracks: Emerging Technologies and Applications, Generating Results from Spectra, Biospectroscopy for Monitoring Drug Efficacy and Quality, and Spectroscopy and Photonics in Consumer Goods. Two keynote speakers are planned: Roger Craig Wiens of Los Alamos National Laboratory and Purdue University will speak on spectroscopy and the Mars Rover, while Rutgers University's Laura Fabris will speak on using surface-enhanced Raman scattering (SERS) to understand drug delivery.

The goal of the event is to provide spectroscopic instrumentation and technique overviews for helping spectroscopists and instrument developers work more efficiently and more cooperatively with one another, within their own teams, and with other customers and partners.

Registration is FREE. The final program can be found here and sign up today to attend.

SAS members Richard Crocombe and Ellen Miseo have a podcast highlighting conference content that just came out on 29 March 2022, and can be <u>heard and downloaded from here</u>.

This conference program is curated in partnership with the leadership of the Society for Applied Spectroscopy and the Coblentz Society: Scott Rudder (OptoSigma), Dr. Ellen Miseo (Miseo Consulting), Dr. Andrew Whitley (HORIBA Scientific), and Dr. Richard Crocombe (Crocombe Spectroscopic Consulting).

SACP/SSP Monthly Meeting: 13 April 2022

To register to attend in-person or virtually, follow this link.

SACP/SSP Joint Meeting and Former Chair Night Wednesday, April 13, 2022 Duquesne University

5:30 PM - Social Hour 6:30 PM - Dinner 7:40 PM - Business Meeting (Approx.) 8:15 PM - Technical Program



SSP Technical Program

Hannah Kaplan, Ph D NASA Goddard Space Flight Center

"Analysis of the Asteroid Bennu as Part of the OSIRIS-Rex Mission"

Biography

Dr. Hannah Kaplan is a research space scientist in the Planetary Systems Laboratory at Goddard Space Flight Center. She uses infrared spectroscopy to understand the composition of planetary surfaces, asteroids, and meteorites, with the goal of determining the distribution of water and organics in our Solar System. Dr. Kaplan is a member of the OSIRIS-REx science team and the Lucy L'Ralph instrument science team.

<u>Abstract</u>

OSIRIS-REx is a spacecraft mission to near-Earth asteroid Bennu that has collected and will return a sample from the asteroid to Earth. Two spectrometers on the OSIRIS-REx spacecraft measured the visible, near-infrared, and thermal-infrared wavelengths of light reflected or emitted from the asteroid over multiple years of observation. This spectral data can be used to determine the chemistry and mineralogy of the asteroid, which in turn tell about its origin and geologic history. Major findings from the spectrometers include: the presence of hydrated minerals across the surface of Bennu, organic materials, and the minerals magnetite and carbonate. Dr. Kaplan will describe the OSIRIS-REx mission, asteroid Bennu's history, and future asteroid exploration through the lens of infrared spectroscopy.

MEETING RESERVATIONS: For both in-person and virtual reservations, please CLICK HERE. In-person reservations are due by BY NO LATER THAN Tuesday, April 5, 2022. In-person entree choices include Lobster Romano or Stuffed Zucchini with Artichokes. Please let us know if you have any dietary restrictions. Dinner will cost \$10 (\$5 for undergraduate students). Checks can be made payable to either SACP or SSP, depending on your membership. Please note the dinner policy included in your document links regarding cancellations.

<u>PARKING:</u> Duquesne University Parking Garage entrance is on Forbes Avenue. Upon entering the garage, you will need to get a parking ticket and drive to upper floors. The Power Center can be accessed from the 8th Floor of the Forbes Garage. Bring your parking ticket to the dinner or meeting for a valedation sticker. Please contact Duquesne University, if any difficulties should arise. If there is a special event, please note that you are there for an SSP or SACP meeting to get a parking ticket.

For any questions or problems, please contact Valarie at 412-825-3220 (Ext. 208).

Second in a Series of Research Scrambles – Elevator Talks by 20 Select Graduate Students: 26 May 2022

Are you ready to hear about the latest and greatest research by up-and-coming spectroscopy students? Join us Thursday, 26 May 2022 at 12:00pm EST (9:00am PST) for the much anticipated second "Research Scramble." Each graduate student will provide a three-minute synopsis of their research to be followed by a 30-minute Q&A session. Topics range from Analysis of Automotive Paint Smears to Understanding Titan's Minerals to Single Molecule Detection, all using various types of spectroscopy. Speakers are from Graduate Programs in the United States and Europe!

This event is free to attend!!

Several abstracts have already been submitted and accepted for this second event, BUT we are open to accepting additional speakers! Please see the sponsor sites for more information and for abstract submission.

Sponsored by:

The Coblentz Society (https://www.coblentz.org/)

The New England Regional Section of the Society for Applied Spectroscopy (https://www.nesas.org/)

The New York Regional Section of the Society for Applied Spectroscopy (https://nysas.org/

NY Capitol Region Symposium: 23 May 2022



SAS Early Career Interest Group News

The Early Career Interest Group (ECIG) would like to thank everyone who registered for and attended our webinar on 24 February 2022, *So Many Opportunities: Demystifying Paths for Early Career Spectroscopists*. The ECIG also thanks the speakers who took time out of their busy schedules to talk about their different career paths. Finally, the ECIG would like to thank HORIBA Scientific, Metrohm USA, and Spectroscopy Online for sponsoring the webinar. A total of 214 people attended the event live, and they asked many good questions about spectroscopy careers during the live roundtable discussion.

For those of you who missed out on the live event, it's not too late to watch the webinar! You can watch a replay of the event by going to the webcast's page at Spectroscopy Online and clicking on the <u>registration link</u>.

The SAS-ECIG is currently looking for additional committee members. If you are interested in getting involved with the ECIG, please email Fay Nicolson at ray_nicolson@dfci.harvard.edu for more information!

Job Hunting Thoughts: Why would you respond to a position posting?

Contributed by Ellen V. Miseo, Former SAS President

A position was recently posted on the <u>Coblentz Job Board</u> for an analytical chemist to do thermal analysis of polymers. As a member of the Coblentz Society and/or SAS, you consider yourself a spectroscopist but don't

rule out a position like this. A Coblentz member is actually the hiring manager, and he is looking for someone who can fill the position but, more importantly, be a contributing member of the entire group.

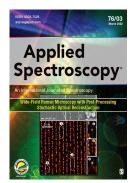
Over your career you will find yourself doing different things. In many industrial positions, IR, Raman, and thermal all go together. So, someone who is primarily responsible for thermal will probably be working in the same lab as the IR/Raman people and may find that they are the backup for each other.

You should not expect to be doing the same thing you did in graduate school or even in a past job. While teaching one of the courses I usually do at Pittcon, we were asking why people took the course. One attendee, who was employed at DuPont while they were "right sizing", said, "I usually do XRD, but my boss came to me asking if I wanted to do FT-IR. So, I said yes because it was implied that if I said no, I might be right sized".

The message here is that if you are interested in working in a corporate analytical environment, don't immediately dismiss a job like this. Do a little digging into the organization and see if it is a place you would like to work. And if it is, think of how you can "sell yourself" on paper to get to talk to a live person. Then explore if this is what you are interested.

March Applied Spectroscopy Cover Highlight

Our highlighted cover paper describes a stochastic optical reconstruction microscopy (STORM) protocol applied to Raman measurements acquired using a wide-field microscope. The authors explore how the fluctuations of the Raman signal acquired over a series of time-lapse images at specific spectral ranges can be exploited with STORM processing, revealing details with improved spatial resolution, under lower irradiance and with faster acquisition speed that cannot be achieved in point scanning mode over the same field of view. Samples studied include patterned silicon, polystyrene microspheres on a silicon wafer, and graphene on a silicon/silicon dioxide substrate. The outcome presents an effective way to collect Raman images at selected spectral ranges with spatial resolutions of ~200 nm over a large field of view under 532 nm excitation together with an acquisition speed improved by two orders of magnitude and under a significantly reduced irradiance compared to confocal laser scanning acquisition.



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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