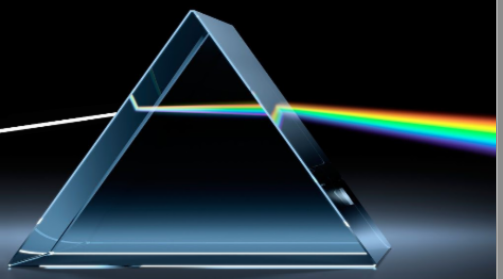
January 2021

SAS eNews



Photonics Spectra Conference: Thursday, 21 January 2021

The Society for Applied Spectroscopy (SAS) has partnered with Photonics Spectra to program the spectroscopy track in their inaugural online conference later this month, which will feature four tracks: lasers, optics, spectroscopy, and biomedical imaging. The Spectroscopy track will take place on Thursday, 21 January 2021, starting at 7:00am EST.

The keynote speaker is Ji-Xin Cheng (Boston University), and his talk is titled, "Seeing Life at the Molecule Level via Advanced Chemical Microscopy".

SAS selected many speakers familiar to the Society and the SciX meeting, including Bernhard Lendl, Karen Faulds, Andrew Whitley, Ellen Miseo, Brooke Kammrath, and Curt Marcott. Speakers on emerging areas and new technologies include Olivier Burggraaf (Smartphone Spectroscopy Enables Citizen Science), Andreas Hugi (frequency comb spectroscopy), and Oumin Shah (Fourier transform UV-Visible spectroscopy). There are talks on microplastic analysis by infrared (Ariel Bohman) and Raman (Bridget O'Donnell) spectroscopy, and Raman spectroscopy in cultural heritage (Claudia Conti). The rapidly growing field of portable spectroscopy is covered in three talks, including one on how to design a portable spectrometer by Terry Sauer. And that's only a sampling of the program!

You can find the full program of the Spectroscopy session at: https://events.photonics.com/Schedule.aspx?EID=1&TID=4

Please note that you have to register (it's free) to attend.

SAS is very pleased to work with **Photonics Spectra** to organize this symposium and bring these speakers on state-of-the-art spectroscopy to a very wide audience across the world.

Contributed by Richard Crocombe,
SAS Past President, racrocombe@gmail.com

SAS NY/NJ Webinar Reminder

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.

Webinar Title: FUNdamentals of Vibrational Spectroscopy

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

Live stream the presentation using Join Microsoft Teams Meeting for the 11:45 a.m. EST login. For more information, go to our website www.nysas.org.

Contact John Wasylyk for details on Microsoft Teams meeting: john.wasylyk@bms.com

Plan now for the next SAS NY/NJ webinar on 18 February 2021, with guest speaker Karen Faulds!

Editor's Note: We Survived 2020, Now What?

As I started writing this month's Newsletter in mid-December 2020, it struck me that a year ago, I was in the same place in my home, gazing out the same window looking at my pool with the neighbor's palm trees swaying in the wind working on the first SAS Newsletter that would bear my name on it as editor. Little did I (nor most of the world at the time) realize how much the year 2020 would change life as we had come to expect and know it. For some reading this Newsletter, 2020 provided some bothersome changes; for others, the disruptions that 2020 brought were literally life-changing, either from a health standpoint or financial (or both). If nothing else, 2020 unfortunately isolated our SAS community with the movement of our national meeting to a virtual platform, and a continuation of this into 2021 with **Pittcon** being virtual as well in March. As a grateful SAS member, I applaud the work of those being agile in their adjustment of these programs to a virtual platform due to COVID-19. I also acknowledge that until the world is in a safer place, this isolation will continue to be our new "normal" for some time more.

For the scientists reading this, the question you are likely asking is, "We survived 2020, now what?" There are two adages in the circles I frequent outside of my spectroscopy crew, "Take what you need and leave the rest", and "Progress, not perfection". These I believe are two helpful mantras I believe we as a spectroscopy community can use as we venture into 2021.

"Take what you need and leave the rest".

I remember the first time a friend said this phrase to me about four years ago and being a bit caught off-guard. As a trained scientist, we have had it drilled into our minds to take in every detail that comes into our framework of experimentation and disregard none of it until proven unnecessary, which often never occurs! When it does occur for us, often it is in the form of discovering a three-inch floppy disk or old Zip disks from 20 years ago in a box we have not touched in five years and realizing we probably do not need that data anymore. All data hogging aside, for a person to suggest to me to leave information behind was rather shocking. It took some time, a substantial amount of pondering, and some practice to come to appreciate more firmly what my friend meant by her statement.

The previously aforementioned training of retaining "all of the things" is an incredibly difficult, but not impossible task for many scientists. However, this diligence of retraining information can suffer substantially when challenged with a change in support systems. Instruction of physical chemistry is an example of this—professors develop curricula with certain assumptions, knowing how many hours a week they will have to instruct students, knowing which concepts will be supplemented by experimental laboratories, and knowing which lecture halls and laboratories they will use for instruction. Remove the support system, moving to all virtual learning for example, and the previous diligence of the curricula quickly falls to shambles. Professors put into this situation quickly had to learn to take what they needed and leave the rest of their support system behind. The knowledge (ideally settled in their brain) and the basic structure of the class (which topics were to be covered when) were the key items to take for themselves. All other components were to be left because, on that day, week, month, semester, as the professors did not have the bandwidth to bring those with them. This sort of example can be found beyond academia into industry and other sectors of spectroscopy work. The key idea behind this phrase is: prioritize what is absolutely necessary for today, everything else is unnecessary for the immediate future.

Given the uncertainties of our world currently, what do we need to take and what do we need to leave? For spectroscopists, the answer will vary widely. If you are willing to think outside the box, these are some ideas for consideration:

- Are you considering a career change? Take that leap by putting out an application for a new position.
- Have you become an expert at Raman spectroscopy, but failed to learn more about near-infrared? Consider auditing a class or taking a webinar or a short course to become more proficient in NIR.
- Is your management pressuring you to take on more than you can handle today at your position? Be willing to say no, or more appropriately, negotiate what needs to happen for you to keep an appropriate work-life balance.
- Do you usually strive to do more than what is called for on a project, and yet, failing to do so now? Consider that being the overachiever right now is too taxing for your mental and physical wellbeing and just stick to what is necessary to meet project objectives.

For a world and a career path that demands that we retain everything we see and hear, consider the helpfulness of taking what you need at that time and leaving the rest for later.

"Progress, not perfection".

Any parents of children aged 12 and under reading this probably understand this concept inherently due to being shoved into the position of both breadwinner and schoolteacher during the spring of 2020. Perfection of either working or teaching simultaneously simply was not possible (and discussed in more detail in a previous Newsletter in 2020). However, application of this principle can be useful without the added complexity of pandemic shutdowns doubling our workload.

Progress, the verb, means to move forward or to develop to a higher, better, or more advanced stage. As a verb, progress does not infer that an action is at the pinnacle of completeness or wholeness. Progress is a step in the right direction, but not a completion of that event. Perfection presumes completion. Perfection only comes with progress of work.

Most scientists strive for perfection. We want to acquire the perfect spectrum for a compound. We want the most perfect model for determining viscosity or concentration or light transmission. We want to be the perfect student to earn all As and get the best job possible after graduate school. None of those perfect scenarios are achieved in one step, in one process, or even in one year. Yet, our perfectionistic tendencies (I have yet to meet one scientist who does not have these) often hinder our progress. Shocking to consider! How many deadlines have we missed because something about our deliverable (or homework, prototype, data) wasn't quite perfect? Mind boggling to consider that the imperfections often are acceptable but the missing of a deadline is not.

Progress, not perfection does not call us to be sloppy in our methodologies or to take the easy way out of complicated project in our work as spectroscopists. Progress demands that we put our best efforts into whatever we do—we are a unique niche of scientists that accomplish many very critical jobs at our various places of employment. Progress asks that we are honest and rigorous about the data we present and ethical in our treatment of others. Progress asks that we put our best foot forward, forward being key here, movement toward betterment, not resigning to the status quo. Progress does not demand perfection, but it asks that we keep stiving ahead, accepting that we (and our work) can be better than yesterday. When we, as spectroscopists, make progress, not perfection our goal, our impact on the world will be greater than we could ever imagine.

Luisa Profeta,
Newsletter Editor

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.