



WEBINARS

Join us for a **FREE Webinar**

Battery Research and Failure Analysis Using Vibrational Spectroscopy

Tuesday, October 11, 2022 1:00 PM - 2:00 PM EDT

[Register Now](#)

Presented by



.: About This Webinar

Combining electrochemistry with vibrational spectroscopy is helpful for studying electrochemical reactions, battery research, and failure analysis. Each molecule has a unique infrared and Raman signature that provides high specificity for the analysis of molecular change during electrochemical reactions.

Sergey Shilov, Ph.D., of Bruker Optics presents an overview of spectroelectrochemical tools and the optimization of their setup, and he shares details about the communication between the potentiostat and the spectrometer.

Applications for vibrational spectroscopy combined with electrochemistry include the electro-oxidation of metal-organic complexes, carbon analysis in flexible electrodes, the chemical mapping of the solid electrolyte interface of lithium metal batteries, and the analysis of the gases that are evolved during the batteries' decomposition.

Who should attend:

Engineers, manufacturers, and R&D scientists who utilize or are interested in vibrational spectroscopy or electrochemistry. Those whose work includes electrochemical reactions, battery research, and failure analysis. Anyone who works with technologies such as imaging, microscopy, nanophotonics, and test and measurement in industries such as aerospace, automotive, and medicine.

About the presenter:

Sergey Shilov, Ph.D., is research and development product manager for North America at Bruker Optics. He joined Bruker in 2001 and is responsible for the support and development of new applications for the Bruker research Fourier transform infrared (FTIR) systems. He received a doctorate in polymer physics from the Russian Academy of Sciences in 1992 and a Master of Science degree in physics from St. Petersburg State University in 1986. The Alexander Von Humboldt foundation in Germany awarded him a research fellowship in 1996. Shilov has published 37 papers in peer-reviewed journals, and his research interests include time-resolved FTIR spectroscopy, surface science, polymers, and life science applications.

About Bruker Optics:

[Bruker Optics](#) is a performance leader in life science and analytical systems. For over 50 years, Bruker has been driven by a single idea: to provide the best technological solution for each analytical task. Bruker's trusted solutions encompass a wide number of analytical techniques ranging from magnetic resonance to mass spectrometry and gas chromatography, to microanalysis, optical, and x-ray spectroscopy. These market- and technology-leading products are driving and facilitating key application areas such as life science research, pharmaceutical analysis, applied analytical chemistry applications, materials research, nanotechnology, clinical research, molecular diagnostics, and homeland defense.



.: Mark Your Calendar

Date: Tuesday, October 11, 2022

Time: 1:00 PM - 2:00 PM EDT

Space is limited. Reserve your Webinar seat now at: <https://attendee.gotowebinar.com/register/3305323693733662219?source=Eblast>

After registering you will receive a confirmation email containing information about joining the Webinar.

SYSTEM REQUIREMENTS

Operating System

Windows[®] 7 or later, Mac OS[®] X 10.9 or later, Linux[®], Google Chrome[™] OS
Android[™] OS 5 or later, iOS[®] 10 or later

Web Browser

Google Chrome[™] (most recent 2 versions)
Mozilla Firefox[®] (most recent 2 versions)

Mobile Devices

Android[™] 5 or later
iPhone[®] 4S or later
iPad[®] 2 or later
Windows Phone[®] 8+, Windows[®] 8RT+

.: More from Photonics Media

Upcoming Webinars

- [SPEX: Combining Spectroscopy and Polarimetry for Remote Sensing](#), 9/28/2022 10:00:00 AM EDT
- [A Technical Exploration of Spatial Light Modulators and Their Latest 3D Applications](#), 9/29/2022 1:00:00 PM EDT

Archived Webinars

- [An Introduction to Plastics Laser Welding](#)
- [Spectral Domain Optical Coherence Tomography Spectrometers for Today and Beyond](#)
- [SWIR Colloidal Quantum Dot Sensor Bandwidth and Thermal Stability: Progress and Outlook](#)

Don't miss out!

Sign up for our Webinar Alerts email today and never miss an upcoming event.

We respect your time and privacy. You are receiving this email because you are a Photonics Spectra magazine subscriber. You may use the links below to manage your subscriptions or contact us.

Questions: info@photonics.com

[Unsubscribe](#) | [Subscribe](#) | [Subscriptions](#) | [Privacy Policy](#) | [Terms and Conditions of Use](#)

Photonics Media, 100 West St., PO Box 4949, Pittsfield, MA 01202-4949
© 1996 - 2022 Laurin Publishing. All rights reserved. Photonics.com is Registered with the U.S. Patent & Trademark Office.
Reproduction in whole or in part without permission is prohibited.