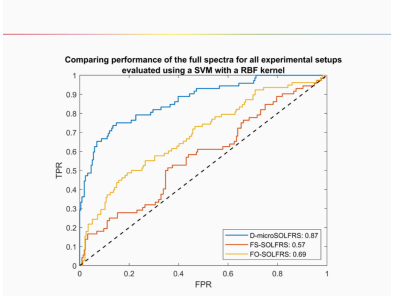
SOCIETY FOR APPLIED SPECTROSCOPY

Quarterly Literature Review - March 2026

In the first of our new quarterly newsletters highlighting key papers published in our journals, we celebrate the first Peter Griffiths Award, recognizing the best paper published in *Applied Spectroscopy Practica* each year. This first award was chosen from all the papers published from *Applied Spectroscopy Practica*'s first volume up until the end of 2024. Subsequently, award winners will be chosen from the past year, just as the Meggars' Award for *Applied Spectroscopy*.

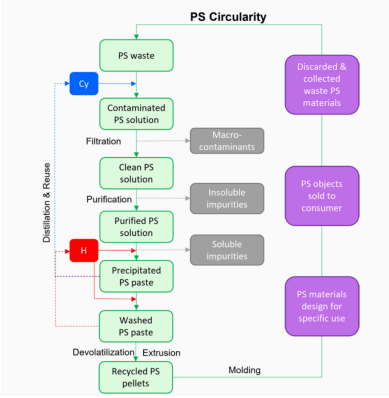


First Annual Peter Griffiths Award

Congratulations to Mitchell C. Chalmers, Teemu Tomberg, Keith C. Gordon, and Sara J. Fraser-Miller on their paper that highlights the utility of low-frequency Raman Spectroscopy to better identify microcalcifications due to its sensitivity to crystalline structure and hence have potential to improve disease diagnostics:

"Discriminating Model Microcalcifications Immersed and Under Varying Depths of Wax Using Deep Low-Frequency Raman Spectroscopy"

Applied Spectroscopy Practica 2024, Vol. 2(4) p. 1-12



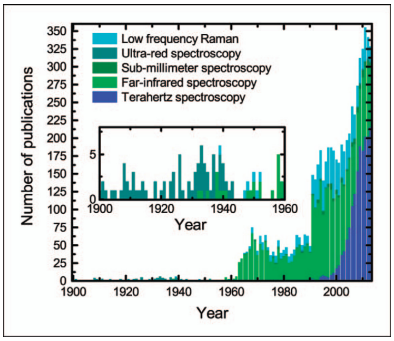
A Peter Griffiths Award Honorable Mention Goes to…

The Award committee also selected an Honorable Mention paper that describes the utility of Infrared attenuated total reflection spectroscopy in a manufacturing environment to accurately assess solvent levels in recycled polystyrene quickly and with low CO2 emission levels to assist in process optimization:

"Quantification of p-Cymene and Heptane in a Solvent-Based Green Process of Polystyrene Recycling

Authors: Zeinab Kara Ali, Jean-Mathieu Pin, and Christian Pellerin"

Applied Spectroscopy Practica 2023, Vol. 1(1) p. 13-20

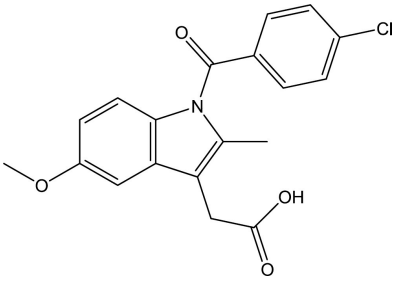


Not too familiar with low-frequency Raman spectroscopy?

Low frequency Raman targets the lattice and phonon modes and provides complimentary information on polymers and crystalline materials. If you are not familiar with the technique, you might want to check out an Applied Spectroscopy Focal Point article from 2015 by Edward P.J. Parrott and J. Axel Zeitler that can get you started entitled:

"Terahertz Time-Domain and Low-Frequency Raman Spectroscopy of Organic Materials"

Applied Spectroscopy, 2015, Vol. 69(1) p 1-25

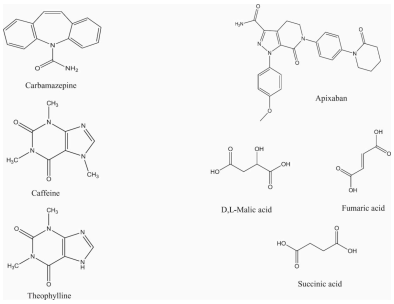


Open access and free to read articles offer an entry point into learning about a new technique or application. But the technical literature has much more information on these new topics. Another interesting article is:

"Application of Low- and Mid-Frequency Raman Spectroscopy to Characterize the Amorphous-Crystalline Transformation of Indomethacin"

Applied Spectroscopy, 2015, Vol. 69(11) p 1217-1228

where low- and mid-frequency Raman spectroscopy is used for the detection of the onset of crystallization, suggesting this technique will be valuable as an at-line or on-line monitoring tool.



Another article discussing the same technique and its application in the pharmaceutical industry is:

"Polymorph Characterization of Active Pharmaceutical Ingredients (APIs) Using Low-Frequency Raman Spectroscopy"

Applied Spectroscopy, 2015, Vol. 69(11) p 1217-1228

which discusses instrument developments that allowed increased access to this important region of the vibrational spectrum.

Some of these papers are open access or free to read but the archives of *Applied Spectroscopy* has a wealth of information on the practical aspects of optical spectroscopy. Some of the most important references for both atomic and vibrational spectroscopy can be found in this journal.

Members of the Society for Applied Spectroscopy to have access to ALL the papers, published in *Applied Spectroscopy* from the first issue published in 1946 to the present. **Learn more about the benefits of society membership**.

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