



an Open Access Journal by MDPI

## Past Present and Future of Raman Spectroscopy

Guest Editors:

### Dr. Kundan Sivashanmugan

1. Nano Life Science Institute,  
Kanazawa University, Kanazawa,  
Japan

2. University of Maryland School  
of Medicine, Baltimore, MD, USA

### Dr. Xianming Kong

School of Petrochemical  
Engineering, Liaoning  
Petrochemical University, Fushun  
113001, China

Deadline for manuscript  
submissions:

**closed (31 January 2024)**

### Message from the Guest Editors

Dear Colleagues,

In the last 20 years, more and more scientific fields have become interested in Raman spectroscopy because it could be used in fields that need non-destructive microscopic chemical sensing and biological imaging. The “Raman effect” is remarkable for being based on the inelastic scattering of an incident photon by atoms and molecules in a substance. It may occur in solids, liquids, or gases. The technology behind Raman spectroscopy has made tremendous progress in recent years to address problems including fluorescence, limited sensitivity, and weak Raman signals. In addition, many more advanced Raman techniques than the conventional dispersive Raman approach have been developed to fulfill the challenges of analysis. These techniques include a Fourier Transform Raman Spectrometer, Confocal Raman Microscopy, Surface Enhanced Raman Scattering (SERS), Tip-enhanced Raman Scattering (TERS), and Coherent Anti-Stokes Raman Scattering (CARS). Physicists and chemists have used Raman scattering to investigate the chemical composition of several liquid and solid materials.



[mdpi.com/si/131938](https://mdpi.com/si/131938)

# Special Issue



an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Thomas J. Schmidt**

Institute of Pharmaceutical  
Biology and Phytochemistry,  
University of Münster,  
Corrensstrasse 48, D-48149  
Münster, Germany

## Message from the Editor-in-Chief

As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

## Author Benefits

**Open Access:** free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High Visibility:** indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [MEDLINE](#), [PMC](#), [Reaxys](#), [CaPlus / SciFinder](#), [MarinLit](#), [AGRIS](#), and [other databases](#).

**Journal Rank:** JCR - Q2 (Chemistry, Multidisciplinary) / CiteScore - Q1 (Chemistry (miscellaneous))

## Contact Us

---

*Molecules* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/molecules](http://mdpi.com/journal/molecules)  
[molecules@mdpi.com](mailto:molecules@mdpi.com)  
[X@Molecules\\_MDPI](#)