Special Issue

Novel Laser-Based Spectroscopic Techniques and Applications: 2nd Edition

Message from the Guest Editors

Laser-based spectroscopic techniques represent a paradigm shift in analytical methodologies, offering unprecedented precision and sensitivity in the study of matter.

Recent years have witnessed the rise in novel laser-based techniques pushing the boundaries of spectroscopy. Two-Dimensional Electronic Spectroscopy and Coherent Anti-Stokes Raman Scattering bring unprecedented capabilities for studying ultrafast dynamics and non-linear processes, respectively. Terahertz Time-Domain Spectroscopy introduces a new frontier, offering insights into materials inaccessible to other spectroscopic methods.

This Special Issue explore not only the core aspects of these cutting-edge techniques and their diverse applications, but also the advances in precision and versatility of the spectroscopic techniques which have already reached the maturity.

The novelty aspects include the miniaturization of equipment, enhanced portability, and broader accessibility. Also, anticipated developments include heightened sensitivity, real-time imaging capabilities, and further integration with emerging technologies like quantum sensing and communication.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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