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# Results in Chemistry

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## Editorial

### Results on Molecular Spectroscopy



This special issue of *Results in Chemistry* is dedicated to **Molecular Spectroscopy**, comprising 44 articles that span a broad range of spectroscopic techniques and problems. Encompassing both experimental and theoretical investigations, this volume offers insights into application of spectroscopy across various scientific disciplines.

Nowadays, Molecular Spectroscopy is a cornerstone in the scientific endeavour, offering unparalleled insights into the structure, dynamics, and interactions of molecules across various domains. Molecular spectroscopic techniques are nowadays fundamental tools in the fields of chemistry and physics, with far-reaching implications in biosciences, materials sciences, Earth and space research, forensic sciences, and cultural heritage preservation, among others. Their presence extends across academic, industrial, and clinical environments, underscoring their indispensable role in advancing scientific knowledge and technological innovation. Besides, in tandem with modern chemometrics and artificial intelligence methodologies, spectroscopy has undergone substantial advancements, expanding its capabilities in both analytical and big data domains. This integration of spectroscopic methods with computational approaches has propelled scientific inquiry to new heights, facilitating comprehensive analysis and interpretation of complex data sets and systems.

The articles featured in this volume exemplify the versatility of spectroscopy in addressing a multitude of scientific problems. Spanning from the investigation of simple diatomic molecules employing sophisticated methodologies to the exploration of intricate biological systems

and materials using multi-technique approaches, the breadth of topics covered underscores the wide-ranging application of spectroscopy.

The contributions in this volume encompass studies on both organic and inorganic systems (and hybrid organic–inorganic materials), traversing the spectrum from fundamental research on molecular properties to practical uses in diverse fields, including disease diagnosis and environmental applications.

We anticipate that this special issue will make a significant impact in the field of Molecular Spectroscopy, and we extend our heartfelt gratitude to the authors for entrusting us as the platform for disseminating their research findings. Additionally, we would also like to express our appreciation to the diligent reviewers whose meticulous evaluations have elevated the scientific rigor and quality of the articles presented in this volume.

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