Special Issue

Design, Synthesis and Applications of Fluorescent Probes

Message from the Guest Editors

The design and synthesis of fluorescent probes for bioimaging applications have seen significant advancements in recent years. These probes play a crucial role in visualizing and understanding biological processes at the molecular level. By utilizing these probes, researchers can track specific molecules, monitor cellular activities, and investigate disease mechanisms. The aim of this Special Issue of *Molecules* is to provide an updated and integrated focus on the development of advanced fluorescent probes, which has opened up new possibilities in diagnostic imaging, drug discovery, and basic biological research. Key considerations in the design process include brightness, photostability, specificity, and biocompatibility. This field continues to evolve, with ongoing efforts to create novel fluorescent probes with improved performance and expanded applications. The scope of this Special Issue is broad and includes the following areas: fluorescent probes for ions, peroxides, proteins, and nucleic acids, and their applications in bioimaging.

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Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 30th 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 all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

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