

Special Issue

Photoactivated Molecules for Applications in Photodynamic and Photothermal Therapy

Message from the Guest Editors

Photodynamic therapy (PDT) and photothermal therapy (PTT) are two innovative, minimally invasive treatment strategies that rely on light activation to selectively eliminate diseased cells, including cancerous tissues and pathogenic microorganisms. The design and engineering of novel photoactive agents have opened new avenues for enhancing their therapeutic efficiency, selectivity, and safety. Moreover, innovative strategies have explored photoactive molecules, including light-controlled drug release and combination therapies, to enhance therapeutic precision, penetration depth, and biocompatibility. This Special Issue of *Molecules* aims to bring together cutting-edge research and reviews on photoactivated molecules and their applications in PDT and PTT. Topics of interest include the synthesis and characterization of new photoactive compounds, the development of novel applications or activation strategies, studies on photophysical and photochemical properties, mechanistic insights into biological interactions, and optimization of therapeutic performance through targeted or responsive systems.

Guest Editors

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About the Journal

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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