

Special Issue

Photothermal Agents in Therapy

Message from the Guest Editors

Thermal treatments are based on driving the normal temperature of the body (or part of it) at higher values in a controlled manner. Controlled temperature increments have a positive effect on patients with an ongoing disease, such as cancer. Thermal treatments include two techniques, namely hyperthermia and thermal ablation. The difference between these is the threshold of temperature: in hyperthermia, the temperature rises to 42 oC, while in thermal ablation, the temperature exceeds 42 oC. Thermal ablation is the basis of photothermal therapy (PTT). For this therapy, it is necessary to induce a temperature increase in the tumor, while keeping the temperature of the surrounding tissue at a normal level. To increase the efficacy and selectivity of photothermal ablation, it is necessary to introduce substances into the tumor to convert the absorbed light into heat. Such substances are called photothermal agents (PA). To date, a vast array of nanoparticles capable of efficient heat generation under illumination with laser radiation have been developed.



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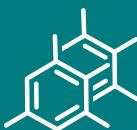
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As the premier open access journal dedicated to molecular chemistry, now in its 30th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical 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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