Special Issue

Molecules and Their Various Nonlinear Optical Properties

Message from the Guest Editors

Novel molecules with superior second- and third-order nonlinear optical (NLO) coefficients are needed for photonics devices, telecommunications, bio-imaging, terahertz generation, and optical limiting applications. For example, the real part of $\chi^{(3)}$ is related to optical signal processing and switching applications. In contrast, the imaginary part of $\chi^{(3)}$ finds applications in limiting and imaging. This Special Issue covers the latest developments in (i) the design/theoretical calculations of excellent NLO coefficients (both second order and third order) in novel molecules, (ii) strategies for molecular engineering, (iii) measurements of the second-order and third-order NLO properties, (iv) optimization of the properties at the molecular level, (v) molecular crystals, (vi) the preparation of optical devices from molecules, (vii) multi-photon absorption (2PA, 3PA, 4PA) studies, etc. Articles from other related areas of research are also welcome.

Guest Editors

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Message from the Editor-in-Chief

As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th 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 multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

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