Special Issue

Matrix Infrared Spectra and Molecular Structures of Reactive Intermediates

Message from the Guest Editor

The reactive intermediates generated in chemical reactions, such as free radicals, unstable ions, and activated complexes, are short-lived and highly reactive. Identification of such chemical species is important to help understand chemical reaction mechanism. The reactive intermediates can be isolated in low temperature matrix, which can be identified by infrared spectroscopy. Such MI-IR (matrix isolation–infrared spectroscopy) technique goes back for many years, which is continuously used to identify the reactive species. The state-of-the-art theoretical calculations are performed to confirm the assignments of matrix infrared spectra and explore reaction mechanism and nature of bonding. This Special Issue will focus on recent progress of matrix isolated reactive intermediates, both experimentally and theoretically.

Guest Editor

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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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