Special Issue

On-Water Catalysis

Message from the Guest Editors

The reaction rates of many organic reactions are remarkably increased when they are carried out in the water medium. This approach is appealing, as it is more economic and environmentally friendly. In 2005, these accelerated reactions which occur at the organic–water interface have been named “on-water” reactions. Since then, great strides have been made to identify, classify, characterize, and explain on-water reactions. Our view of on-water reactions is also shaped by understanding the underlying peculiarity of the water–organic interface and the nature of intermolecular interactions. To that end, molecular dynamics simulations and mechanistic studies of reaction pathways have been employed to rationalize the experimental findings. An unassailable model has not yet been reached. In this Special Issue, we aim to combine efforts from the scientific community studying on-water catalysis, whether experimentally or computationally. We welcome efforts to identify new on-water reactions, or explore the mechanistic complexity of previously known ones.

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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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