

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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