# Special Issue

# Essential Oil: Variability, Environmental Conditions, Composition and Bioactivity

## Message from the Guest Editor

Essential oils (EOs) are a complex matrix composed of numerous volatile compounds generally extracted from different parts of the plant by steam distillation. They are known to have various biological activities often attributed to their phenolic constituents. They have always been used in folk medicine and for food preservation. Today, many applications concern the use of EOs as new natural sources of biological interest. Their chemical composition depends on cultivars, environmental factors, and extraction processes. Ensuring the reproducibility of EO's quality requires controlling all these parameters. This Special Issue will focus on the variability of EO's composition, the identification of factors that influence variability as well as authenticity indicators. The aim of this Special Issue is also to provide an overview of the demonstration of the synergistic effect between EO's molecules or in association with existing drugs to strengthen biological activities. Finally, research on the impact of the domestication of plants on the chemical composition and biological activity of their EOs will be appreciated for the sustainable management of biodiversity.

## Guest Editor

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## Deadline for manuscript submissions

closed (31 October 2021)

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## Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 29th 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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