Special Issue

Synthesis of Natural Products Using Engineered Plants and Microorganisms, 2nd Edition

Message from the Guest Editors

Plants and microorganisms, particularly medicinal herbs, harbor diverse natural products, many of which are bioactive molecules with potential pharmaceutical or health benefits. However, the compositions of these bioactive molecules in their original sources are usually low. The development of omics technologies and synthetic biology provide opportunities to produce bioactive molecules using metabolically engineered plants or microorganisms. Artemisinin, rare ginsenosides, and various other natural products have been successfully scaled up for potential use as drugs or functional foods. There is a growing interest in further harnessing cutting-edge synthetic biology technologies to expand the utilization of these natural products via engineering both plants and microorganisms.

Guest Editors Dr. Yongjun Wei

Prof. Dr. Lingbo Qu

Prof. Dr. Xiao-Jun Ji

Deadline for manuscript submissions closed (31 July 2025)



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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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