Special Issue

Seaweed Biorefinery and Related Technologies

Message from the Guest Editors

In order to build a sustainable society, it is necessary to establish "biorefinery technologies" that convert raw materials from petroleum or renewable resources such as biomass, for the production of fuel and a variety of chemical products. Biorefinery is a technical approach that produces fuels and chemicals by fermenting monosaccharides obtained by decomposing polysaccharides from biomass with microorganisms. Seaweed is an unused plant resource, with the exception of several species. Thus, seaweed is attracting attention as an alternative raw material to replace food biomass, cellulosic biomass, and microalgae. In order to establish highly efficient, robust and applicable "seaweed biorefinery technologies", it is necessary to accumulate basic findings based on the following fields: marine bacteria with the activity of decomposing seaweed polysaccharides, seaweed polysaccharide-degrading enzymes (e.g., alginate lyases, ulvan lyases, etc.), physiologically active substances derived from seaweed (e.g., phlorotannins, sterols, fatty acids, and pigment composition), component analysis of seaweed, and seaweed physiology.

Guest Editors

Dr. Toshiyuki Shibata

 Major of Life Sciences, Graduate School of Bioresources, Mie University, 1577 Kurimamachiya-cho, Tsu, Mie 514-8507, Japan
 Seaweed Biorefinery Research Center, Mie University, 1577 Kurimamachiya-cho, Tsu, Mie 514-8507, Japan

Dr. Tetsushi Mori

Department of Biotechnology and Life Science, Tokyo University of Agriculture and Technology, Koganei, Japan

Deadline for manuscript submissions

closed (1 April 2022)



Molecules

an Open Access Journal by MDPI

Impact Factor 4.6 CiteScore 8.6 Indexed in PubMed



mdpi.com/si/82638

Molecules
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
molecules@mdpi.com

mdpi.com/journal/molecules





Molecules

an Open Access Journal by MDPI

Impact Factor 4.6 CiteScore 8.6 Indexed in PubMed



About the Journal

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.

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt

Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Corrensstrasse 48, D-48149 Münster, Germany

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Reaxys, CaPlus / SciFinder, MarinLit, AGRIS, and other databases.

Journal Rank:

JCR - Q2 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.1 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the first half of 2025).

