

Special Issue

Innovative Extraction Techniques to Sustainable Production in Food and Biotechnology

Message from the Guest Editors

Large amounts of agri-food by-products, non-edible food and waste are produced throughout the supply chain. The valorization of this biomass it is possible by extraction process to obtain high value-added compounds and the development and use of environmentally friendly assisted methods, since they improve extraction efficiencies while diminishing the degradation of solute compounds.

The classical extraction processes high environmental impact, require expensive safety measures owing to the toxicity and flammability of the solvents and involve high costs for solvent separation and purification and for the disposal of the solvent residues and spent solid.

Supercritical fluid extraction (SFE), the use of hydrofluorocarbon solvents under subcritical conditions are examples of the most popular innovative extraction techniques owing to their high extractive yields, low environmental impact, and great process selectivity.

Keywords: Agri-Food By-Products; Biomass Valorization; Extraction Processes and Efficiencies; Organic Solvents; High Yields; Renewable Natural Products

Guest Editors

Dr. Marianna Gallo

1. Department of Industrial Engineering, University of Niccolò Cusano, Via Don Carlo Gnocchi 3, 00166 Rome, Italy
2. Department of Chemical Engineering, Materials, and Industrial Production, University of Naples Federico II, P. Tecchio 80, 80125 Naples, Italy

Dr. Roberto Nigro

Department of Chemical Engineering, Materials, and Industrial Production, University of Naples Federico II, P. Tecchio 80, 80125 Naples, Italy

Deadline for manuscript submissions

closed (25 May 2022)



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/83171

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

mdpi.com/journal/

[applsci](https://mdpi.com/journal/applsci)





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



[mdpi.com/journal/
applsci](https://mdpi.com/journal/applsci)



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)