agronomy

an Open Access Journal by MDPI

IMPACT FACTOR 3.7

CITESCORE 5.2

Research Progress in Biochar and Microbial Remediation for Heavy Metal Agricultural Soil

Guest Editors:

Dr. Małgorzata Majewska
Department of Industrial and Environmental Microbiology, Institute of Biological Sciences, Faculty of Biology and Biotechnology, Maria Curie-Sklodowska University, Akademicka 19, 20-033 Lublin, Poland

Dr. Agnieszka Hanaka
Department of Plant Physiology and Biophysics, Institute of Biological Sciences, Faculty of Biology and Biotechnology, Maria Curie-Sklodowska University, Akademicka 19, 20-033 Lublin, Poland

Deadline for manuscript submissions:
31 December 2024

Message from the Guest Editors

Biochar (BC) is a carbon product that is synthesized via the pyrolysis of biological materials in the absence of oxygen. BC is a porous material with a large sorption surface area containing many functional groups. These features allow BC to be used as a soil conditioner that increases the organic carbon content, regulates the pH, and retains water in the soil. Biochar reduces the mobility of heavy metals in the soil, as well as the uptake and accumulation of these metals in plant biomass.

The aim of this Special Issue is to provide insight into methods of improving the structural and physicochemical properties of BC and enhance its potential in the microbial remediation and phytoremediation of metal-contaminated soils. Also of relevance are the effects of BC on plant growth, soil microorganism activity, and diversity, and the stability of heavy metals and their distribution between exchangeable, reducible, oxidisable and residual fractions, as well as the possible hazards associated with BC application in agricultural soils.

agronomy

IMPACT FACTOR 3.7

CITESCORE 5.2

an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Peter Langridge
School of Agriculture, Food and Wine, University of Adelaide, Urrbrae, SA 5064, Australia

Message from the Editor-in-Chief

Agronomy draws together researchers from diverse areas of agricultural research with a common aim of enhancing agricultural productivity globally. The journal provides unlimited free access to all those interested in advancing agricultural science from both the research and general community. Papers are released immediately after acceptance through the internet. *Agronomy* is supported by our authors and their institutes through low article processing charges (APC) for accepted papers. We hope you will support the journal by becoming one of our authors.

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), PubAg, AGRIS, and other databases.
Journal Rank: JCR - Q1 (*Agronomy*) / CiteScore - Q1 (*Agronomy and Crop Science*)

Contact Us

Agronomy Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/agronomy
agronomy@mdpi.com
𝕏@Agronomy_Mdpi