



New Frontiers of Heavy Metal Detection in Soil

Guest Editor:

Dr. Sheila Alves

Department of Crop Research,
Teagasc, Oak Park, Carlow
R93XE12, Ireland

Deadline for manuscript
submissions:

closed (31 December 2022)

Message from the Guest Editor

Heavy metals from both natural and anthropogenic sources present a significant risk to human and environmental health. Over the years, several techniques and methodologies have been developed for detection and quantification of heavy metals. However, due to the complexity of the soil matrix, the low levels of occurrence of certain heavy metals, and the need to target its content in specific soil pools, the applicability, associated turnover time, and sensitivity of such techniques and methodologies have impaired the rapid and reliable detection of heavy metals in soils in specific situations. Therefore, the development of new techniques and/or methodologies for quantification of total heavy metal content as well as its speciation in the soil matrix that are robust, fast, capable of metal determination at low ppm, ppb, and ppt levels, and/or with the potential for onsite and in situ application is central to preventing and controlling heavy metal contamination.

In this Special Issue, we invite submissions exploring cutting-edge research and recent advances in the field of heavy metal detection and quantification in soils, targeting total content and/or specific fractions.





an Open Access Journal by MDPI

Editor-in-Chief

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

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.

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), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

Contact Us

Applied Sciences Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/applsci
applsci@mdpi.com
[X@Applsci](#)