Special Issue

Geochemistry and Mineralogy of Ni-Co Laterite Deposits

Message from the Guest Editors

Ni-Co laterites have been studied for many decades providing a good picture of their structure, element distribution and mineralogy, especially of Ni minerals (e.g. garnierites, Ni-serpentines, Ni-smectites, asbolane-lithiophorite, Fe-oxyhydroxides). Recently, Ni-Co laterites have surpassed Ni-sulphides as the main Ni source, accounting for about 50% of the current world's Ni production and hosting near 60% of the world land based resources. It has been revealed that besides Ni, these laterite deposits usually contain other elements that are becoming more demanded (critical metals/high-tech elements). They are worthy targets of Co, Sc and/or PGE. In addition, there are still a lot of unknowns regarding element mobility, mineralogy and/or environmental impact of Ni-Co laterite deposits. In this Special Issue we want to publish the latest research on trace element geochemistry, and minerals containing Ni and/or critical metals found in Ni-Co laterite deposits, including their tailings, to provide new information about their texture, chemical composition, crystal chemistry, and genesis, which is paramount to improve the efficiency for recovery of target elements.

Guest Editors

Dr. Cristina Domènech

Department of Mineralogy, Petrology and Applied Geology, Universitat de Barcelona, 08028 Barcelona, Spain

Dr. Cristina Villanova-de-Benavent

Department of Mineralogy, Petrology and Applied Geology, Universitat de Barcelona, 08028 Barcelona, Spain

Deadline for manuscript submissions

closed (16 December 2022)

Minerals

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.4

mdpi.com/si/60738

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

mdpi.com/journal/minerals

Minerals

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.4

mdpi.com/journal/minerals

About the Journal

Message from the Editor-in-Chief

Minerals welcomes submissions that report basic and applied research in mineralogy. Research areas of traditional interest are mineral deposits, mining, mineral processing and environmental mineralogy. The journal footprint also includes novel uses of elemental and isotopic analyses of minerals for petrology, geochronology and thermochronology, thermobarometry, ore genesis and sedimentary provenance. Contributions are encouraged in emerging research areas such as applications of quantitative mineralogy to the oil and gas, manufacturing, forensic science, climate change, geohazard and health sectors.

Editor-in-Chief

Prof. Dr. Leonid Dubrovinsky
Bayerisches Geoinstitut, University Bayreuth, D-95440 Bayreuth, Germany

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), GeoRef, CaPlus / SciFinder, Inspec, Astrophysics Data System, AGRIS, and other databases.

Journal Rank:

JCR - Q2 (Mining and Mineral Processing) / CiteScore - Q1 (Geology)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.2 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).

MDPI