# Special Issue

# Crystallization and Growth of Graphite

### Message from the Guest Editors

While carbon constitutes only about 0.032 mass % of the Earth's lithosphere (crust and outer mantle), its uses in modern technology span many fields—from graphite-reinforced polymers used in the manufacture of expensive sports cars, competition bicycles and motorbikes, or high-performance sailboats to graphitic cast iron for wind turbine parts, engine blocks, and cooking pans. Graphite is also a natural mineral. Understanding how to produce certain forms of graphite and graphite arrays from nature, such as nanotubes and conical shapes, can have scientific and technological paybacks. In addition, graphene can be obtained from graphite through exfoliation methods, as it is a basic layer of the graphite crystal. It can be used as a nanofiller in polymer composites with enhanced electrical, mechanical, and thermal properties. Hence, whether we consider natural graphite formed from a metamorphic fluid or cast-iron graphite crystallized from an iron–carbon melt, the need to understand its crystallization and growth transcends disciplines in science and technology.

### Guest Editors

Prof. Dr. Doru Michael Stefanescu

Department of Materials Science and Engineering, The Ohio State University, 2041 College Rd., Columbus, OH 43210, USA

Prof. Dr. Attila Diószegi

Department of Materials and Manufacturing, School of Engineering, Jönköping University, P.O. Box 1026, SE-551 11 Jönköping, Sweden

### Deadline for manuscript submissions

closed (19 February 2021)

**Minerals**

an Open Access Journal by MDPI

Impact Factor 2.2
CiteScore 4.4

mdpi.com/si/47422

*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