Special Issue

Biogeochemistry of Arctic and Antarctic Sea Ice

Message from the Guest Editors

Sea ice is a crucial component of the Earth's climate system. It hosts a diverse community of primary producers, thus providing a key habitat for one of the most unique ecosystems on Earth. The morphological, genetic, and biochemical characteristics of microbial and microalgal primary producers can provide a wealth of information about their habitat and ambient climatic conditions. These characteristics are key to interpreting marine micropalaeontological and organic geochemical records in the Arctic and Antarctic regions. The purpose of this Special Issue is to gather the recent developments in the biology and molecular and stable isotope geochemistry of primary producers to develop an integrated approach for linking their biological and biogeochemical characteristics with evolutionary and environmental factors in the polar regions. We welcome contributions that broadly cover the following topics:

- systematics and ecology of sea-ice microalgae;
- algal biomarkers, with focus on their chemistry, occurrence, and application in paleoclimate studies;
- stable isotopes of biomarkers from diatoms and other microalgae.

Guest Editors

Dr. Nikolai Pedentchouk

School of Environmental Sciences, University of East Anglia, Norwich NR4 7TJ, UK

Dr. Maxim Kulikovskiy

K.A. Timiryazev Institute of Plant Physiology RAS, IPP RAS, 35 Botanicheskaya St., 127276 Moscow, Russia

Deadline for manuscript submissions

closed (31 May 2022)



Geosciences

an Open Access Journal by MDPI

Impact Factor 2.1 CiteScore 5.1



mdpi.com/si/77186

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

mdpi.com/journal/geosciences





Geosciences

an Open Access Journal by MDPI

Impact Factor 2.1 CiteScore 5.1



About the Journal

Message from the Editor-in-Chief

Understanding the Earth's origin and its bio-geological evolution, the multiple implications of the geosciences (as a coherentset of interconnected disciplines), and the sociocultural and ethical interdisciplinary approaches, will be crucial for a better understanding of Nature, and also for undertaking scientificallybased political decisions.

We are committed to drive *Geosciences* to a position in which it is recognized for its high-quality, cutting-edge research and scientific influence, and strongly encourage and invite your participation and manuscripts.

Editor-in-Chief

Prof. Dr. Alberto G. Fairén

- 1. Centro de Astrobiología, CSIC-INTA, Madrid, Spain
- 2. Department of Astronomy, Cornell University, Ithaca, NY, USA

Author Benefits

Open Access:

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

High Visibility:

indexed within Scopus, ESCI (Web of Science), GeoRef, Astrophysics Data System, and other databases.

Journal Rank:

CiteScore - Q1 (General Earth and Planetary Sciences)

