



## Early Diagenetic Processes in Marine Cold Seeps

Guest Editors:

**Dr. Alexey Ruban**

Division for Geology, School of  
Earth Sciences & Engineering,  
Tomsk Polytechnic University,  
Tomsk 634050, Russia

**Dr. Elena Gershelis**

Division for Geology, School of  
Earth Sciences & Engineering,  
Tomsk Polytechnic University,  
634050 Tomsk, Russia

Deadline for manuscript  
submissions:

**closed (31 January 2024)**

### Message from the Guest Editors

Dear Colleagues,

Cold seeps are a widespread phenomenon that occur on the shelves and continental slopes of inland and marginal seas around the world. The seepage of hydrocarbon-rich fluids causes a change in the biogeochemical environment in sediments and in bottom water. This contributes to the formation of carbonate and sulphide minerals, the enrichment of sediments with some trace elements, the transformation of communities of benthic animals and microorganisms, etc. In addition, cold seeps are a source of methane (the strongest greenhouse gas), the emission of which into the atmosphere can lead to positive feedback on climate warming. The study of modern cold seeps is the key to understanding their role in sedimentary processes and climate change in past geological periods.

Multidisciplinary studies of cold seep marine sediments based on a variety of laboratory methods and covering various research aspects regarding the impact of fluid seepage are welcome.

Dr. Alexey Ruban

Dr. Elena Gershelis

*Guest Editor*





# quaternary



an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Jef Vandenberghe

Department of Earth Sciences,  
VU University, De Boelelaan 1085,  
1081 HV Amsterdam, The  
Netherlands

## Message from the Editor-in-Chief

We live in a Quaternary world, that is, a world shaped by the interplay of the different compartments of the earth system—lithosphere, hydrosphere, atmosphere, biosphere, cryosphere—during the last ~2.6 million years. It is not possible to understand the current world—and, hence, to anticipate its possible future developments—without knowing the Quaternary history of drivers, processes, and mechanisms that have generated it. Our own species is an evolutionary outcome of the Quaternary performance. Therefore, the journal *Quaternary* is born with the aim of being an integrative journal to encompass all aspects of Quaternary science focused on understanding the complex world in which we live and to provide a sound scientific basis to anticipate possible future trends and inform environmental policies.

## 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](#), and [other databases](#).

**Journal Rank:** CiteScore - Q2 (*Earth-Surface Processes*)

## Contact Us

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

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/quaternary](http://mdpi.com/journal/quaternary)  
[quaternary@mdpi.com](mailto:quaternary@mdpi.com)  
[X@Quaternary\\_MDPI](#)