



Chemical and Isotopic Signatures of Sediments: What do they tell us about the geological history of the Earth?

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Message from the Guest Editor

Dear Colleagues,

Sediments that derived from the weathering of rocks exposed at the surface of the Earth or the precipitation of dissolved constituents out of river or seawater constitute a substantial archive to study the nature, composition, and evolution of the Earth's major reservoirs, such as the continental crust and the ocean. The creation, transport, preservation, and alteration of sediments are related to geological processes acting in the Earth throughout its history. Their isotopic and chemical compositions are key in helping constrain:

- Crustal compositions and mechanisms involved in the formation and recycling of crustal material through time
- Modern and past biogeochemical cycles in the ocean and on continent
- Environmental and climatic conditions (redox, temperature, biological activity, etc.) prevailing through Earth's history

This special issue of *Geosciences* seeks original contributions that provide new insights into the evolution of the Earth's major reservoirs using the geochemistry of modern and ancient sediments from detrital, chemical, or biochemical origin.





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Message from the Editor-in-Chief

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

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