

Special Issue

Tracing Groundwater Recharge Sources Using Stable Isotopes

Message from the Guest Editors

The goal of this Special Issue is to gather original research articles and review papers that investigate isotope-based insights into aquifer recharge in both natural and anthropogenically influenced systems. Particular emphasis will be given to innovative applications and emerging methodologies that enhance our understanding of recharge dynamics across various climatic, geological, and land-use contexts. Contributions that integrate isotopic tracers with numerical models, geochemical tools, or long-term monitoring strategies are especially encouraged. This Special Issue will welcome manuscripts that explore the following themes:

- Applications of $\delta^{18}\text{O}$, $\delta^2\text{H}$, $^{87}\text{Sr}/^{86}\text{Sr}$, and other tracers to identify recharge sources.
- Groundwater age-dating using noble gases and radioactive isotopes (^3H , ^{14}C , etc.).
- Rock–water interactions and their isotopic signatures.
- Isotopic tools in modeling recharge under different climatic and geologic settings.
- Assessing recharge in arid, semi-arid, coastal, and mountainous environments.
- Effects of land use, pollution, and climate change on recharge pathways.
- Novel tracer combinations and advances in sampling/analytical techniques.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Hydrology is the study of the waters of the Earth. Hydrology has close ties with hydraulics, hydrogeology and the multiple sciences that study the atmosphere, the land surface, the soil and the subsoil, and ranges from complex problems of risk, forecasting and optimization of water resources to interactions with ecological, urban, social and economic systems. The purpose of *Hydrology* is then to provide a journal where research results and real-world problems can be presented and discussed in order to bridge the traditional gaps between the academic world and the professionals and decision makers. Therefore, *Hydrology*, invites authors to submit their original theoretical, field, experimental, and numerical studies on hydrology with strong emphasis on multidisciplinary approaches and interdisciplinary topics, which cross the typical boundaries of our science.

Editor-in-Chief

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Author Benefits

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Journal Rank:

JCR - Q2 (Water Resources) / CiteScore - Q1
(Oceanography)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.7 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the first half of 2025).