

## Special Issue

# Groundwater Quality, Hydrochemical Assessment and Water–Gas–Rock Interaction Processes

### Message from the Guest Editors

Groundwater systems are strongly influenced by water–gas–rock interactions, controlling hydrochemical evolution and determining both geological and environmental implications. Isotopic and geochemical tracers provide unique tools to unravel fluid origins and reconstruct past tectonic and geological events. At the same time, monitoring groundwater chemistry and isotopic variability offers a promising approach for detecting early signs of natural hazards, such as volcanic unrest episodes, seismic activity and subsurface gas migration. This Special Issue invites contributions integrating (i) hydrochemical, (ii) isotopic and (iii) modeling approaches to advance the understanding of aquifer dynamics and their role as indicators of geodynamic processes. This Issue aims to foster strategies for the interpretation of short/long-term hydrogeological evolution as well as for groundwater protection and risk mitigation.

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### Guest Editors

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### Deadline for manuscript submissions

closed (20 April 2026)



## Water

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In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

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### Editor-in-Chief

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