



water

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Application of Isotopic Data to Water Resource Management

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Message from the Guest Editors

Sustainable groundwater management relies on the use of isotopic techniques that are well established in groundwater research. These powerful tools include age tracers, dissolved gases, and stable isotopic compositions of water and nitrate. Similarly, stable isotope techniques have been used to identify the location and source of groundwater recharge, to identify nitrate sources and transport pathways, and to demonstrate denitrification in support of monitored natural attenuation. Recent advances in instrumentation have made stable isotope and dissolved gas analyses more accessible for both research scientists and water agencies. This Issue solicits papers on the use of age tracers and stable isotopic compositions to sustainably manage groundwater quality and supply. Case studies of the use of isotopic data to support management decisions provide useful templates for designing future investigations and data-driven sustainable groundwater management. Methods for translating isotopic data into meaningful information about environmental processes and timescales range in complexity from simple conceptual models, groundwater flow and transport models, and advanced statistical methods.



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Message from the Editor-in-Chief

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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