



Geogases in Fault Zones

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Deadline for manuscript submissions:

closed (15 September 2022)

Message from the Guest Editors

Active fault zones represent unique pathways for fluids from the subsurface and by this give us a direct insight into the composition and flux of volatiles from great depth. Fluids are also thought to play an active role in fault zone processes by e.g. creating enhanced pore pressure, which may lead to fault weakening and subsequent rupture, or by fluid-rock interaction that decreases friction coefficients of fault zone rock. Understanding the spatial distribution and temporal variation of fluids in fault zones is therefore a key element for a better understanding of processes in active fault zones. Abundances and isotopic compositions of geogases such as CO₂, H₂, CH₄, Rn and He are suitable to determine different fluid origins and to characterize the evolution of fluids, fluid flow pathways and fault zone permeability over time and in space. We invite submissions from all areas of geogas research in fault zones, including but not limited to studies on fluid samples from diffusive degassing, from hot springs, bubbling pools and mofettes, and from boreholes, both onshore and offshore.





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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.

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