



Geological Storage of Gases as a Tool for Energy Transition

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Most countries are engaged in an “energy transition” because fossil fuels are a limited resource and greenhouse gas emissions have to be mitigated. Geologists play a major role in this new challenge, by using rocks as a reservoir to store gases, either definitively or temporarily as a function of the nature of the stored gases. The injection of such gases in reservoir rocks induce many mechanical, thermal and physico-chemical processes leading to the evolution of materials with time. The storage impairment has to be understood and controlled in order to avoid any leakage of the stored gases, which could have an environmental or economic impact.

The goal of this Special Issue of Geosciences is to be widely opened to new researches related to the geological storage of gases. In particular, but not exclusively, the topics related to:

- Hydrogen
- CO₂ and acid gases
- Compressed air

The studies address all the geological storage, from the mechanic to the geochemistry, without neglecting the monitoring aspects. Experimental, analytical and modelling approaches are encouraged.





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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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