

Call for Papers
Oil & Gas Science and Technology - Revue d'IFP Energies nouvelles
Topical issue on
“Subsurface Fluid Injection and Energy Storage”

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Synopsis:

Porous media flow and rock mechanics during subsurface injection and geoenery utilization and storage govern performance and success in regard to the reduction of emissions of noxious substances (e.g. H₂S) and greenhouse gases (mainly CO₂) to the atmosphere, and effective exploration and exploitation of geoenery such as shale gas, geothermal energy and gas hydrates, etc, and even the subsurface energy storage for carbon neutral process like power-to-gas. Significant scientific and technical challenges must be solved to securely and safely develop subsurface fluid injection and energy storage.

Within the general scope of this topical issue, the focus will be on the coupled interaction of processes during flow in porous media studied by laboratory and field experiments and numerical simulations. Of specific interest are flooding mechanisms and injectivity, induced seismicity, hydrate formation, wellbore failures, caprock integrity, hydraulic fracturing, risk assessment, etc.

We encourage submission of papers about monitoring and simulation techniques as well as publications of data from practical engineering projects and guideline developments. The outline of new and emerging lessons learnt are also encouraged.

Topics of interest of this topical issue but not limited to, the following:

Geologic CO₂ storage

CO₂ utilization for enhanced geoenery production

Power-to-gas science and technology

Subsurface fluid injection induced seismicity

Thermo-hydro-mechano-biochemical interaction processes

Multicomponent, multiphase, multiphysical, and multiscale modeling

Integration and optimization of renewable energy and subsurface storage

Novel technologies of monitoring and evaluation

Big data analysis and machine learning

Important dates:

July 31, 2019: Full paper submission due (OGST online submission)

September 18, 2019: Notification of full paper decision

November 18, 2019: Accepted final papers due

December 18, 2019: Online and hard-print of the issue

Suggestions for the preparation of full papers:

Journal's topical issue manager is eager to work with you to produce a high quality issue that will have a long-lasting impact.

<https://ogst.ifpenergiesnouvelles.fr/submit-an-article>

Please select appropriate Topical Issue title when you submit your manuscript.

All papers will be peer-reviewed by at least two independent reviewers. Requests for additional information should be addressed to the editors.