Special Issue

Advances in Underground Thermal Energy Storage

Message from the Guest Editors

There is a global drive towards a net-zero carbon economy, which could be achieved with the help of underground thermal energy storage. Heating and cooling have to be decarbonised, since they account for much of the energy spent globally. The aim of this Special Issue is to present advances in underground thermal energy storage. This can include case studies, theoretical studies, studies that involve system design, modelling, control, implementation, monitoring or optimisation, as well as reviews. Please also note that studies are not limited to subsurface technologies only, and the implementation of charge sources and demand (i.e. through heat networks) is also of interest. Topics of interest include, but are not limited to:

- Borehole thermal energy storage
- Aquifer thermal energy storage
- Pit and mine thermal energy storage
- Geothermal heating and cooling
- Thermal response tests
- Whole-system modelling
- Heat networks
- Surface analysis of demand and charge
- Waste heat recovery
- Energy efficiency
- System optimisation
- Economic analysis
- Technological advances

Guest Editors

Dr. Isa Kolo

James Watt School of Engineering, University of Glasgow, Glasgow G12 8QQ, UK

Dr. Christopher Brown

British Geological Survey, Keyworth, Nottingham NG12 5GG, UK

Dr. Chaofan Chen

Helmholtz Centre for Environmental Research (UFZ), Leipzig, Germany

Deadline for manuscript submissions

closed (31 July 2024)

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/152156

Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

mdpi.com/journal/energies

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/journal/energies

About the Journal

Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)

MDPI