

## Special Issue

# Multiscale and Multiphysics Processes in Unconventional Formations 2020

### Message from the Guest Editors

The emergence of production techniques for unconventional reservoirs has had a transformative effect on the oil and gas industry. Initial productivity decreases markedly after a few months. Research and development activities are required to increase long-term productivity by unveiling storage and production mechanisms that are poorly understood at present. Given the inherent multiscale nature of the rock fabric, spanning 10 orders of magnitude in spatial scales, advances in multiscale characterization and modeling techniques are needed. This Special Issue welcomes research studies on unconventional multiscale reservoir characterization, geochemical, geomechanical and geostatistical studies, model systems, phase behavior in tight rock, and modeling methods of the variety of physicochemical processes in unconventional formations.

---

### Guest Editors

Prof. Dr. Vladimir Alvarado

Department of Chemical and Biomedical Engineering, College of Engineering and Physical Sciences, University of Wyoming, Laramie, WY 82071, USA

Prof. Dr. Anthony Kavscek

Department of Energy Resources Engineering, Stanford University, Stanford, CA 94305-2220, USA

---

### Deadline for manuscript submissions

closed (10 January 2021)



## Energies

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.0  
CiteScore 6.2



[mdpi.com/si/52105](https://mdpi.com/si/52105)

*Energies*

MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[energies@mdpi.com](mailto:energies@mdpi.com)

[mdpi.com/journal/  
energies](https://mdpi.com/journal/energies)





# Energies

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.0  
CiteScore 6.2



[mdpi.com/journal/  
energies](https://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 Aerospace Engineering, University of Roma Sapienza, Via Eudossiana 18, 00184 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)