

Special Issue

2D Crystals for Zeroing Energy Expenses in the Construction Sector

Message from the Guest Editors

Innovative materials have led to new structural and energy performance levels in construction, often revolutionising the industry. Two-dimensional materials are characterised by extraordinary properties (e.g. physical and chemical), yet applications in the construction sector are still limited. However, applying 2D materials in construction composites can open up new scenarios in the progressive decarbonisation of the construction sector and contribute to a reduction in the environmental impact of the building industry. This Special Issue is intended to be a cornerstone in the literature on the applications of 2D materials, such as graphene and graphene-related materials, in the construction sector to achieve a net zero construction industry. In addition, it aims to collect the main research experiences concerning the main production techniques suitable for the construction sector and lessons learnt from other advanced construction materials with the potential of driving improvements in the 2D sector. The preferred types of articles are research articles, reviews, and communications. The main topics concern applications of 2D materials in construction materials.

Guest Editors

Dr. A. E. Del Rio Castillo
Dr. Federica Pascale
Dr. Salvatore Polverino

Deadline for manuscript submissions

closed (31 July 2025)



Energies

an Open Access Journal
by MDPI

Impact Factor 3.9
CiteScore 8.3



mdpi.com/si/173669

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

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





Energies

an Open Access Journal
by MDPI

Impact Factor 3.9
CiteScore 8.3



[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 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)