

## Special Issue

# New Challenges in Thermodynamics

### Message from the Guest Editors

Society is undergoing a primary process of decarbonization. Industrial and energy processes based on fossil fuels must be replaced by new technologies and materials that reduce emissions and are economically sustainable.

Thermodynamics is the branch of physics that studies energy exchanges and transformations. Scientific research in this field plays a fundamental role in this decarbonization scenario, as it enables different solutions to be characterized, evaluated, and compared to identify the optimal one.

This challenge involves, on the one hand, developing methods and tools that enable the laws of thermodynamics to be applied to new processes and materials. On the other hand, it is necessary to develop new teaching techniques and methodologies that provide scientists and engineers with the tools they need to face the challenges of the future.

---

### Guest Editors

Dr. Javier Rodríguez-Martín

Dr. Javier Muñoz Antón

Dr. Susana Sánchez-Orgaz

Prof. Dr. Fernando Varela

---

### Deadline for manuscript submissions

25 June 2026



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/255433](https://mdpi.com/si/255433)

*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[appls@mdpi.com](mailto:appls@mdpi.com)

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





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



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



## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

---

### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, 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, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )