



an Open Access Journal by MDPI

High-Entropy Materials and Their Applications

Guest Editors:

Prof. Dr. Saveria Santangelo

Department of Civil, Energy,
Environmental and Materials
Engineering (DICEAM),
Mediterranean University of
Reggio Calabria, 89122 Reggio
Calabria, Italy

Dr. Claudia Triolo

Department of Civil, Energy,
Environmental and Materials
Engineering (DICEAM),
Mediterranean University of
Reggio Calabria, 89122 Reggio
Calabria, Italy

Dr. Fabiola Pantò

CNR-ITAE Institute for Advanced
Energy Technologies “N.
Giordano”, Via Salita S. Lucia
sopra Contese 5, 98126 Messina,
Italy

Deadline for manuscript
submissions:

closed (31 December 2022)



mdpi.com/si/90246

Message from the Guest Editors

Dear Colleagues,

High entropy materials (HEMs), an emerging class of single-phase solid solutions composed of a large number of species, are gaining increasing scientific and applicative interest thanks to the possibility of suitably tailoring their structural and functional properties through the choice of proper element combinations and/or proportions. The strong synergistic effects among the constituent species result in enhanced performance compared to conventional compounds.

Among HEMs, particular attention is presently focused on high-entropy oxides (HEOs) and alloys (HEAs), which look to be very appealing materials for energy-related applications, such as energy production and storage.

This Special Issue aims to depict the state of the art of this hot topic, both in terms of goals achieved and challenges to be faced and to draw the possible future scenery for developing HEMs with fully controllable properties. Contributions from all researchers (material scientists, chemists, physicists, engineers, etc.) on the following topics are welcome.

Prof. Dr. Saveria Santangelo

Dr. Claudia Triolo

Dr. Fabiola Pantò

Guest Editors



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica,
Politecnico di Milano, Piazza L.
da Vinci 32, 20133 Milano, Italy

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.

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), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

Contact Us

Applied Sciences Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/applsci
applsci@mdpi.com
[X@Applsci](#)