entropy

an Open Access Journal by MDPI

IMPACT FACTOR 2.7

Indexed in: PubMed

CITESCORE 4.7

Thermodynamics of High-Entropy Alloys

Guest Editor:

Dr. Yu Tang
Department of Materials Science and Engineering, College of Aerospace Science and Engineering, National University of Defense Technology, Changsha 410073, China

Deadline for manuscript submissions:
closed (30 September 2023)

Message from the Guest Editor

High-entropy alloys (HEAs), a novel type of multi-principal alloys, have attracted increasing attention due to their high strength, decent ductility at extreme conditions (e.g., cryogenic temperature and high strain rate), good corrosion, and irradiation resistance. Essentially, these distinguished properties result from their unique microstructure, including severe lattice distortion, local chemical order, and complicated heterostructure. Thermodynamics analysis is an effective way of revealing the mechanisms for phase formation, predicting microstructure, and guiding alloy design. However, the complex multiple-principal components of HEAs challenge the establishment of thermodynamic models, thermodynamic databases, and phase diagrams. Thus, articles that highlight the recent advances and future directions of thermodynamics for HEAs are significant and meaningful. This Special Issue aims to report recent progress in the thermodynamics of HEAs, including but not limited to the development of thermodynamic parameters and models, the creation of phase diagrams, as well as the thermodynamical calculation of HEAs.

entropy

IMPACT FACTOR 2.7 | Indexed in: PubMed | CITESCORE 4.7

an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Kevin H. Knuth
Department of Physics, University at Albany, 1400 Washington Avenue, Albany, NY 12222, USA

Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

Entropy is an online open access journal providing an advanced forum for the development and/or application of entropic and information-theoretic studies in a wide variety of applications. *Entropy* is inviting innovative and insightful contributions. Please consider *Entropy* as an exceptional home for your manuscript.

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), MathSciNet, Inspec, PubMed, PMC, Astrophysics Data System, and other databases.
Journal Rank: JCR - Q2 (*Physics, Multidisciplinary*) / CiteScore - Q1 (*Mathematical Physics*)

Contact Us

Entropy
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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

mdpi.com/journal/entropy
entropy@mdpi.com
@Entropy_MDPI