

Special Issue

Nanoscale Thermodynamics

Message from the Guest Editor

Dear Colleague, This Special Issue focusses on the theory of energy conversion on the nanoscale with the aim of addressing the following questions and aspects related to them: How far down in scale can we really use classical Gibbs thermodynamics? Which theory can be used beyond the limit where classical thermodynamics ceases to apply? It is known that confinement changes the equation of the state of a fluid, but does confinement also change the equilibrium condition itself? How do we formulate the equilibrium conditions on the nanoscale? This Special Issue aims to have a fresh look at why this is so through a review of what has happened since Hill's method became available and by seeking to (re-)define new lines of research using this platform or choosing another platform. We invite authors to submit papers that can contribute to the advancement of nanothermodynamics using theoretical, computational, or experimental tools. The focus is on efforts that support or validate theoretical developments on the nanoscale, the scale of molecular clusters, where surface energies dominate.

Guest Editor

Prof. Dr. Signe Kjelstrup

PoreLab, Department of Chemistry, Norwegian University of Science and Technology, NO-7491 Trondheim, Norway

Deadline for manuscript submissions

closed (31 December 2020)



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 10.3
Indexed in PubMed



mdpi.com/si/27894

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

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





Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 10.3
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano–alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and Environmental Science, University of Birmingham, Birmingham B15 2TT, UK

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), PubMed, PMC, CAPIus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q1 (General Chemical Engineering)