



Thermodynamic Approaches in Modern Engineering Systems

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submissions:

closed (15 May 2020)

Message from the Guest Editors

Dear Colleagues,

We look forward to submissions of critical overviews and original papers on thermodynamic approaches for describing modern systems of engineering relevance. Since its foundation, thermodynamics has provided indispensable tools for *drawing the boundaries* of possible energy transformations. Today, with the rapid development in nanoscience and nanotechnology, we are witnessing an explosion in our degree of freedoms in manufacturing components with unusual behavior, as well as in synthesizing new materials endowed with exceptional properties. This opens up a plethora of new opportunities for improving engineering systems, and clearly needs fundamental guidance to correctly identify limitations, possibilities, and challenges. The aim of this Special Issue is to invite scientists to share recent advancements in both foundations and applications of thermodynamics shedding light on the above opportunities. Examples include (although not limited to) technologies for renewable energy collection, storage, and use; (bio-)chemical reactions for energy applications; advanced energy materials.





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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.

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