Special Issue

Exergetic and Thermoeconomic Analysis of Thermal Systems

Message from the Guest Editor

It has been confirmed by many researchers that exergy analysis accurately quantifies the entropy generation occurring at each component and therefore permits to calculate the lost work (exegy destruction) at the component of thermal systems by the Gouy-Stodola theorem. On the other hand, thermoeconomic analysis based on the exergy, which provides a rationale for assessing the cost of product and helps to optimize the thermal systems, requires further studies to clarify the disputed concepts among researchers. Furthermore, thermoeconomic diagnosis of the thermal systems, which is one of the important fields in the application of the thermoeconomic analysis, has yet to be developed. This Special Issue aims to provide an open discussion on the research carried out in this field, and submissions related to the optimization of thermal systems based on entropy generation minimization and/or cost minimization, exergy costing, including the lost work, and various methods for the thermoeconomic diagnosis are welcome.

Guest Editor

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Deadline for manuscript submissions

closed (28 February 2020)



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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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Editor-in-Chief

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