

Special Issue

The Foundations of Thermodynamics

Message from the Guest Editor

The term “thermo-dynamics” was used by Kelvin in the early 1850s to denote the science of using heat to generate work and vice versa, but developments by Maxwell, Boltzmann and Gibbs, among others, changed the meaning to reflect a concern with microscopic phenomena. This movement probably owes its origins to Clausius, whose own work rapidly moved away from heat engines and cyclic processes to non-cyclic processes and, in particular, the concept of the entropy of a body. The drift away from cyclic phenomena was further emphasized by the work of Caratheodory, whose highly mathematical approach was simplified by Landsberg in the twentieth century. Thus, the foundations of thermodynamics have been laid by numerous people, from Carnot to Landsberg. For this Special Issue, submissions are invited on the contributions of the founders of the subject, including, but not limited to, those mentioned above as well as topics including but not limited to the development and interpretation of the laws of thermodynamics, changing conceptions of heat, the development of the concepts of energy and entropy and cyclic vs. non-cyclic processes.

Guest Editor

Dr. David Sands

Department of Physics and Mathematics, University of Hull, Cottingham Rd., Hull HU6 7RX, UK

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

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Prof. Dr. Kevin H. Knuth

Department of Physics, University at Albany, 1400 Washington Avenue,
Albany, NY 12222, USA

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