Special Issue

Modeling and Design of Electrical Machines and Devices in High Temperature

Message from the Guest Editor

Dear colleagues, This Special Issue is geared toward the design and modeling of machine windings for high temperature and/or high-power density applications. The issues of electrical insulation and heat transfer are the obstacles on which we propose to focus. Indeed, the increase in operating temperatures or dissipated thermal powers requires an improvement in temperature management. Two axes in response can generally be proposed, either to improve the dissipation and the cooling of the coils or to find new insulators which can withstand these temperature increases. This second route seems more complicated to develop, but is of very clear interest, particularly when machines are on-board and there is therefore limited weight and space. The objective of this Special Issue is to highlight the work on these two axes with the aim of subsequently promoting strategies for integrating the two techniques simultaneously to allow high-performance design of high-power motors. This work will make it possible to remove a complex scientific barrier in the design of on-board engines.

Guest Editor

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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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