Special Issue

Thermal Management and Heat Transfer Study in Aero-Devices

Message from the Guest Editor

Thermal management and heat transfer play a critical role in ensuring the efficient and reliable operation of aero-devices. This field focuses on understanding and optimizing heat dissipation, thermal insulation, and temperature control mechanisms within aero devices, such as aircraft engines, gas turbines, and spacecraft components. Cutting-edge topics in thermal management and heat transfer research include:

- Active cooling techniques using microchannels, heat pipes and spray cooling.
- Thermoelectric materials for waste heat recovery in aero-devices.
- Computational fluid dynamics (CFD) simulations for optimizing heat transfer in aerospace systems.
- Additive manufacturing of heat transfer components with complex geometries.
- Thermal management of electric propulsion systems in aircraft.
- Thermal interface materials for improved heat dissipation in aero-devices.
- Thermal analysis and design of hypersonic vehicles.
- Thermal management strategies for unmanned aerial vehicles (UAVs) and drones.

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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