

## Special Issue

# Heat and Mass Transfer Optimization in Efficient Energy Conversion and Thermal Management

### Message from the Guest Editors

This Special Issue highlights theoretical and experimental investigations that contribute to optimizing energy conversion processes through advanced thermal management techniques. Topics of interest include innovative heat exchanger designs, phase change materials, nanofluids, passive and active cooling strategies, CFD-based analyses, and multiscale modeling approaches. Moreover, it also emphasizes the use of artificial intelligence, machine learning, and optimization algorithms to enhance the control and prediction of thermal behavior. Therefore, the core objective is to address current challenges in reducing energy consumption, increasing thermal efficiency, and promoting environmental sustainability in modern energy systems. Finally, this Special Issue aims to serve as a platform for exchanging innovative ideas and practical solution proposals targeting the complex challenges of thermal engineering.

### Guest Editors

Prof. Dr. Alvaro Antonio Villa Ochoa  
Dr. Gustavo De Novaes Pires Leite  
Dr. José Ângelo Peixoto Da Costa

### Deadline for manuscript submissions

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*Processes*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[processes@mdpi.com](mailto:processes@mdpi.com)

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### Editor-in-Chief

Prof. Dr. Giancarlo Cravotto

Department of Drug Science and Technology, University of Turin, Via P. Giuria 9, 10125 Turin, Italy

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