Special Issue

Advanced Research on Heat Exchangers Networks and Heat Recovery

Message from the Guest Editors

The use of energy defines the paradigm of economic development around the globe, and energy efficiency is one of the key issues for both economic efficiency and environmental impact. Heat exchanger networks in different industries can recover the process heat energy, avoiding additional fuel consumption in furnaces and electricity consumption for cooling cycles. Heat exchanger network synthesis, retrofit, and optimization are long-term developing goals that face new challenges today. Industrial energy transition to renewable energies and the low carbon agenda lead to the formulation of new objectives for heat exchanger networks and heat recovery. Both theoretical aspects and technoeconomic criteria affect future industrial energy systems, where heat recovery plays a key role. This Special Issue is aimed at new advancements and developments in heat exchanger networks, including but not limited to network synthesis and optimization, thermodynamic and thermal design, operation and maintenance, networks for industry electrification, digital twins of heat recovery systems, hydrogen-containing recovery systems, and the integration of renewable energies to heat recovery networks.

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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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