Special Issue

Advances in Cavitation Technology for Energy and Environmental Applications

Message from the Guest Editor

Hydrodynamic cavitation technology, which leverages extreme conditions (including locally generated high temperatures up to 5000 K, high pressures of approximately 1000 bar, shockwaves, and free radicals) through the generation, oscillation, and collapse of bubbles in fluids, has demonstrated unique advantages in energy conversion and environmental pollution control. In recent years, its applications have continuously expanded, with significant advancements in technological integration and innovation. This Special Issue focuses on research advancements in cavitation technology for energy and environmental applications. We welcome submissions on all aspects of advanced hydrodynamic cavitation technology, including numerical simulations and experimental studies, such as visualization and image recognition analysis. Advanced measurement techniques are highly encouraged. Innovations in hydrodynamic cavitation for environmental pollution control, energy production and conversion, marine ecological protection, and related fields are of particular interest. In addition, we also encourage the design of new types of cavitation reactors to improve the efficiency of cavitation.

Guest Editor

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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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