Special Issue

Liquid-Liquid, Oil-Water Energy Efficient Separations

Message from the Guest Editor

Liquid–liquid separation is at the cornerstone of clean water supply due to the ever-increasing water pollution from oil exploitation activities, as well as the massive production of wastewater in industrial processes including in pharmaceutical, mining, metallurgical, paper-making, food, and textile production. Membrane-based separation of oil–water mixtures is favored over conventional methodologies as they require no regeneration of spent media, chemical additives, and thermal inputs. Among them, high-pressure membranes (e.g., reverse osmosis, ultrafiltration) and the membranes with wettability remain the most widely used in liquid separations. However, challenges such as permeability-selectivity trade-off, chemical and mechanical robustness, upscaling limitations, susceptibility to fouling, and the resulting increased operation costs have partly counterbalanced their advantages.

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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