

Special Issue

Transport Processes in Single- and Multi-Phase Flow Systems

Message from the Guest Editors

- Transport processes that involve the transfer of mass, momentum and energy are fundamental to a variety of industrial systems and natural phenomena. These processes can occur with or without chemical reactions, and their behavior is influenced by the phase structure of the system. In single-phase transport systems, the processes are typically governed by diffusion, turbulence and heat transfer, etc.; however, in multiphase systems, such as particle laden flow or gas–liquid mixtures, interactions between the phases complicate transport and require the phase boundaries and the interphase exchanges to be considered. The introduction of chemical reactions further complicates these processes as they influence concentration gradients, the temperature field and properties of the fluid.
- This Special Issue, entitled “Transport Processes in Single- and Multi-Phase Flow Systems”, aims to collect novel research contributions that present experimental investigations, model transport processes, or provide comprehensive reviews that suggest research directions and reliable benchmarks for further investigations within this field.

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