Special Issue

Advances in Chemical Engineering and Symmetry/Asymmetry

Message from the Guest Editors

Dear Colleagues, Symmetry and asymmetry are concepts intrinsically related to advancements in Chemical Engineering, dictating microscale phenomena, from molecular interactions and catalytic specificity, to macroscale operations, such as the design and performance of industrial processes. Advances in the field of Chemical Engineering may involve process intensification, biotechnological applications, equipment design, and novel materials, amongst others, in which symmetric or asymmetric features may impact efficiency, selectivity, stability, sustainability (environmental or economic), and safety in chemical systems/processes. This Special Issue invites original research and review articles highlighting the critical role of symmetry and asymmetry in Chemical Engineering innovations. We are interested in contribution studies that explore (but are not limited to) the following:

- Analysis of symmetry/asymmetry in molecular interactions based on thermodynamic experiments or calculations.
- Molecular asymmetry (e.g., chirality) impacts on organic or biotechnological applications, such as enantioselective separations or enzymatic catalysis.
- etc.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

Editor-in-Chief

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