Special Issue

Symmetry and Complexity of Catalysis in Flow Chemistry

Message from the Guest Editors

Flow microreactor systems are used in many chemical processes, from simple homogeneous conversions to complex catalytic and biochemical reactions. Their advantages are based on extremely small dimensions of reactor channels in the range from some micrometers to a few millimeters. This reduces the diffusion length and the mixing time in comparison with conventional reactors and provides better process control and safety. Special types of microreactors are created for different types of systems to ensure the greatest intensification of chemical processes. Especially, the spatial microfluidics symmetry and complexity of the reaction system used is always taken into account. Their main advantages are the improvement of the flow pattern and the intensification of mass and heat transfer as well as of the interaction between reactants at the molecular level.

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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.

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