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Fluorine Chemistry and Catalysis

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Message from the Guest Editor

Fluorine is a key element in the remarkable progress made in chemical science. Organofluorine compounds are substances of considerable interest in various industrial fields. Introducing fluorine atoms often endows the parent (non-fluorinated) organic molecules with attractive properties. Fluorine is now an important element by virtue of the unique properties associated with the atom and its bond to carbon, its high electronegativity and the relatively small size. Due to these attractive properties, organofluorine compounds have been widely used in the design of pharmaceuticals, agrochemicals, refrigerants, dyes, liquid crystals, optical fibers, and highly-durable polymers.

The papers in this Special Issue concern synthetic organofluorine chemistry and applications. Due to the increasing need for fluorine-containing molecules in diverse fields of science and technology, selective synthesis of organofluorine compounds constitutes one of the most challenging issues of modern organic chemistry. The present Special Issue deals with catalytic transformations in organofluorine chemistry, such as fluorination, fluoroalkylation, selective defluorination, and so on.