Special Issue

Catalysts for Selective Oxidation of Methyl Aromatic Hydrocarbons

Message from the Guest Editors

With the gradual changes in the global energy supply structure, refineries with increasing production scale tend to provide more high value-added chemical raw materials. Toluene and xylene are important refining products and basic raw materials for chemical production. Treated by chemical methods such as oxidation, nitration, and chlorination, series of methyl aromatic hydrocarbons with different functional groups can be obtained accordingly, which supports almost the entire fine chemical industry. Selective oxidation is one of the most important ways to functionalize methyl aromatic hydrocarbons by conversion of methyl hydrocarbons into carbon-oxygen bonds to produce oxidation products, such as aromatic alcohols, aromatic aldehydes(ketone), and aromatic acids, which are widely used in food, medicine, pesticides, dyes and other fields. Over the years, lots of researches have been performed to find efficient, convenient, and high-performance catalysts for selective oxidation of methyl aromatic hydrocarbons by oxygen, to obtain prominent selectivity and yield. These tasks are very important and worthy of attention.

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