Special Issue

Efficient Oxidation Catalysis Using Unconventional Methods

Message from the Guest Editors

Selective and efficient catalysts for oxidation reactions under sustainable conditions are an important area of current research interest. There is a high demand for the design of alternative and efficient routes under mild conditions that bypass the use of toxic acid solvents for energy-efficient catalytic processes and for a clean environment. For this purpose, several techniques (e.g., microwave irradiation, ultrasound, advanced oxidation processes (AOPs), ionic liquid or supercritical CO2 medium and gas-phase catalysis) are employed to make the catalytic process more energy-efficient and ecofriendly. Catalysts can be homogeneous, heterogenous or supported, depending on their nature and activity in the catalytic reactions. Papers submitted to this Issue may also include kinetic studies, theoretical calculation, and mechanistic illustrations. The main goal of this Special Issue is to combine a variety of new and original research results on oxidation catalysis under unconventional methods. New and original research studies and review articles on this topic are welcome.

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