Special Issue

Energy-Efficient Catalytic Oxidation

Message from the Guest Editor

Design for energy efficiency is one of the principles of green chemistry. According to this principle, energy requirements should be minimized and should be considered for their environmental and economic impacts. Catalytic oxidation reactions using energy-efficient techniques is a growing research area. To fulfil the green chemistry criteria and to develop sustainable catalytic oxidation processes, it is highly important to use energy-efficient methodologies, e.g., microwave-assisted irradiation, thermoplasmonic-induced reactions, ultrasound, and photo-induced reactions. Catalytic reactions under homogeneous, heterogenous, or supported heterogenous conditions can be explored for this purpose. Kinetic studies, theoretical calculation, and illustrations of mechanisms can also be a part of this topic. The main goal of this Special Issue is to combine a variety of new and original research results on energy-efficient catalytic oxidation methods. New and original research studies and review articles on this topic are welcome.

Guest Editor

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Deadline for manuscript submissions

closed (10 January 2022)

Catalysts

an Open Access Journal by MDPI

Impact Factor 4.0
CiteScore 7.6

mdpi.com/si/69826

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