



Oxidation Catalysis under Unconventional Methods

Guest Editors:

Dr. Tannistha Roy Barman

Centro de Química Estrutural,
Instituto Superior Técnico,
Universidade de Lisboa, Av.
Rovisco Pais, 1049-001 Lisboa,
Portugal

Dr. Manas Sutradhar

1. Faculdade de Engenharia,
Universidade Lusófona, Campo
Grande 376, 1749-024 Lisboa,
Portugal
2. Centro de Química Estrutural,
Instituto Superior Técnico,
Universidade de Lisboa, Av.
Rovisco Pais, 1049-001 Lisboa,
Portugal

Deadline for manuscript
submissions:

closed (31 December 2022)

Message from the Guest Editors

Selective and efficient catalysts toward oxidation reactions under sustainable conditions are an area of current research interest. It is very important to design alternative and efficient routes under mild conditions and bypass the use of toxic acid solvents for an energy-efficient catalytic process and for a clean environment. For this purpose, several techniques, such as the use of microwave irradiation, ultrasound, ionic liquid or supercritical CO₂ medium and gas phase catalysis, are employed to make the catalytic process more energy-efficient and ecofriendly.

The main goal of this Special Issue is to combine a variety of new and original research results on oxidation catalysis under unconventional methods, which cover the following points:

1. Oxidation reactions under homogeneous catalysis condition using microwave irradiation, Ultrasound, reactions in ionic liquid medium or super critical conditions, etc.;
2. Oxidation reactions under heterogenous catalysis conditions or catalysts onto supported materials;
3. Kinetic or electrochemical studies to explore the role of catalysts;
4. Theoretical calculations to elucidate the mechanism of the catalytic reaction.

