



Heterogeneous Catalysis for Sustainable Conversion of Biomass, Carbon Dioxide and Plastic Waste into Fuels and Chemicals

Guest Editors:

Dr. Ines Graca

School of Engineering, University of Aberdeen, Aberdeen AB24 3UE, Scotland, UK

Dr. Auguste Fernandes

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

Dr. Alan J. McCue

Department of Chemistry, University of Aberdeen, Aberdeen, UK

Deadline for manuscript submissions:

15 November 2024

Message from the Guest Editors

This is a Special Issue on the recent advances in the development and application of heterogeneous catalysts for the sustainable conversion of biomass, carbon dioxide and plastic wastes into chemicals and fuels under reaction conditions. We are interested in both experimental and theoretical/computational investigations on this topic, at both the fundamental and more applied levels (i.e., under more realistic conditions; pilot-scale investigations). We are anticipating studies involving the detailed characterisation of catalysts, the establishment of structure–activity correlations, the investigation of reaction networks and the development of kinetic studies and kinetic models. Studies are not limited to the use of one single type of waste feedstock. We also welcome work exploring the potential synergisms between different types of wastes. Additionally, we are not only willing to receive contributions on the use of the heterogeneous catalysts under conventional thermal catalysis conditions, but also under more sustainable and innovative sources of energy, such as plasma, microwave, ultrasounds, electrochemistry, etc.

