catalysts

an Open Access Journal by MDPI

IMPACT FACTOR 3.9

CITESCORE 6.3

The Applications of Heterogeneous Noble Metal Catalysts in Biomass Conversion

Guest Editor:

Dr. Chao Liu
Dalian National Laboratory for Clean Energy, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian 116023, China

Deadline for manuscript submissions:
closed (30 April 2024)

Message from the Guest Editor

Due to the advantages of heterogeneous noble metal catalysts in selectivity and stability, it can achieve efficient REDOX conversion of organics under relatively mild conditions. With the support of the noble metal nanocluster synthesis technology, it is helpful to realize the specific exposure of the active sites on the heterogeneous noble metal catalysts and reduce the consumption of precious metals. It shows significant application advantages in the energy chemical industry and environmental protection.

Therefore, this Special Issue focuses on the biomass conversion of the heterogeneous noble metal catalysts. The biomass would cover sucrose, froctose, cellulose, 5-hydroxymethylfurfural, furfural, etc. The biomass conversion reaction may include hydrogenation, oxidation, oxidative esterification, etc., on the supported noble metal catalysts. We hope to educate researchers, allowing them to better understand the application of noble metal catalysts and the previously unknown mechanism of biomass conversion, thereby promoting biomass conversion as a viable alternative to coal and petroleum.