catalysts

an Open Access Journal by MDPI

IMPACT FACTOR 4.0

CITESCORE 7.6

Structure–Activity Relationships in Catalysis

Guest Editor:

Dr. Anna Maria Venezia
Institute of Nanostructured Materials (ISMN), CNR (Consiglio Nazionale delle Ricerche), Via Ugo La Malfa 153, 90146 Palermo, Italy

Deadline for manuscript submissions:
closed (30 November 2018)

Message from the Guest Editor

Dear Colleagues,

Catalysis, a technology devoted to the modification of chemical reactions with increased conversion and selectivity, relies very much on the structural design and on the surface properties of the materials used as catalysts. Any catalytic process involves a sequence of elementary steps, including adsorption, surface diffusion, chemical rearrangement of the adsorbed reaction intermediate and desorption of the products. The nature of the catalyst, in terms of chemical formulation, physical, textural and morphology properties, strongly affects each of these steps. Understanding the relationship between a single feature of a catalyst and its activity behavior is mandatory in order to regard catalysis as an exact science rather than as a trial-and-error approach.

The present Special Issue will be a compendium of original research papers and reviews, focused on special aspects of the structure–activity relationship in chemical reactions relevant to both industrial and environmental catalysis. The development of new materials, new synthetic routes, advanced characterization tools and modelling are among the included topics.

Dr. Anna Maria Venezia
Guest Editor