Advanced materials: adsorbent and catalyst for environmental application

Junhua LI (✉), Shubo DENG (✉)

State Key Joint Laboratory of Environment Simulation and Pollution Control (SKLESPC), School of Environment,
Tsinghua University, Beijing 100084, China

© Higher Education Press and Springer-Verlag Berlin Heidelberg 2013

With the economic growth, the environmental pollution is still a challenge for sustainable development all over the world. In order to prevent, reduce and remediate the various environmental problems, it is crucial to develop innovative and efficient materials to remove and decompose pollutants from air or water in that the efficient adsorbents and catalysts are playing an important role in the process of physical and chemical reactions. Therefore, the editors of FESE proposed to publish one special issue, and report the original research and review papers about advanced adsorbents and catalysts that are potentially or widely applied in environmental protection.

The contents of the articles include the preparation and application of environmental adsorbents and catalysts, which are mainly applied in air pollution control and wastewater treatment. The scientific topics of the articles include exhaust gas purification (such as DeNO_x catalysis from mobile and stationary sources, catalytic oxidation of CO and VOC), the removal of inorganic and organic pollutants from wastewater by some novel adsorbents and catalysts, indoor air quality improvement via photo-, plasma- and electro-catalysis for the removal of indoor air pollutants, and CO₂ capture using various adsorbents.

We believe that the special issue will promote the information communication among leading researchers working on adsorbents and catalysts for controlling air pollution and improving water quality, and contribute to the well understanding between environmental catalysis/adsorption and environmental sciences.

The FESE Editorial Office's assistance is much appreciated.