

Foreword

Photocatalysis continues to be a rapidly developing field of general catalysis. A few years ago we published the first specialized issue of Catalysis Today, totally devoted to this problem [1]. This is the second specialized issue of our journal, also devoted to many problems of modern photocatalysis. The contents of the issue have been formulated after the 12th International Conference on Photochemical Methods of Solar Energy Conversion and Storage, IPS-12, held in Berlin in 1998 and concerned, indeed, many urgent problems of photocatalysis too.

When designing the issue, we tried to show a flavor of current research and developments provided in the field of modern fundamental and applied photocatalysis. The issue includes the papers which concern typical research activity in the fields of both homogeneous and heterogeneous photocatalysis starting from mimicking the energy-storing function of natural photosynthesis. Indeed, the main part of the issue is devoted to heterogeneous photocatalysis and related phenomena, which occur on the surface of not only semiconductors, recognized now as the most promising types of heterogeneous photocatalysts. Also, in this issue we present some papers which do not concern the photocatalysis itself. Thus, one paper considers the proper-

ties of “nearly conventional dark catalysts” which are necessary for the photocatalysts to be able to accomplish, e.g., complex multielectron redox reactions. Another paper is devoted to new ways of the fabrication of semiconductor nanoparticles of the halogenide nature which are widely used as active photocatalysts. In two papers of the issue we show modern and very specific problems of chemical engineering in the field of applied photocatalysis as well as some results of large scale pilot tests of applied photocatalytic systems.

Hopefully, the issue will be of interest not only for researchers engaged in the field of photocatalysis but also to specialists in traditional catalysis.

Reference

- [1] V.N. Parmon (Guest Ed.), Catal. Today 39 (3) (1997).

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