Preface

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This Special Issue of *Research on Chemical Intermediates* consists of the manuscripts which were presented in the “Photocatalysts session” of the 10th International Symposium on Eco-Materials Processing and Design (ISEPD 2009). The ISEPD2009 was held in Xi’An, P. R. China, on January 13–15, 2009.

The aim of the Symposium was to give an overview of the present status with regard to historical background and to foresee the future trends in the field of photocatalyst research. Serious global and environmental problems have led the ceramics manufacturing industries to closely monitor the formation and accumulation of carbon dioxide and other toxic gases in the atmosphere, the reduction of raw materials, the consumption of energy, and other factors of impact to the industry. Presentations and discussions were carried out on such topics as room- and low-temperature synthesis, low-energy processing, aqueous synthesis and processing, the reuse and recycling of waste materials, and the elimination of such hazardous materials as cadmium, mercury, lead, and six-valence chromium, which are restricted from use on electronic components and automobile parts under the European Committee RoHS guidelines. The ceramic and glass industries have

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addressed environmental concerns by investing in the research of various materials for safe and clean systems and processes. Among these, titanium dioxide has been found to be especially promising for applications in ceramic materials that contribute to environmental purification or that can create non-polluting clean energy. New and up-to-date research and development on environmentally benign, safe processes were the focus of this conference.

The “Photocatalysts session” of the ISEPD2009 was successfully organized by Professor Masakazu Anpo at Osaka Prefecture University, Japan, and Professor Soo Wahn Lee at Sun Moon University, Korea. The Symposium was composed of one plenary talk, 13 invited talks, nine normal oral talks, and 20 poster presentations.

It is our great pleasure to have organized the “Photocatalysis Session” at the ISEPD2009. We were delighted to see that many researchers are interested in the synthesis and the applications of photocatalyst materials. Many fruitful and exciting research achievements were presented in the symposium, not only in the fundamental subjects, such as photochemical mechanism research, but also in some new photocatalytic materials, green chemical characterization systems, utilization of visible light, etc., indicating that the photocatalytic process is a powerful and sustainable technology. This symposium provided a good chance for scientists to communicate and exchange opinions with one another. We would also like to express our sincere appreciation to all of the members of the International Advisory Committees, the Organizing Committee, and the Lecturers. We hope that this special issue will be accepted as an original and valuable contribution to the literature in the field.

Chair:

Prof. Masakazu Anpo, Osaka Prefecture University, Japan

Fig. 1 Group photograph of the participants of the ISEPD2009 held in Xi'an, P. R. China, January 13–15, 2009

Co-chairs:

Prof. Soo Wohn Lee, Sun Moon University, Korea

Prof. Leticia M. Torres-Martinez, University Autonomous of Nuevo Leon,
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