



Advances in chemical technologies for water and wastewater treatment: preface

Chemical technologies have been applied for water and wastewater treatment since more than 150 year ago, and are still playing the leading role in this field. With the fast development of sciences and technologies especially in the last two decades, chemical technologies which are applicable for solving water quality and water environmental problems underwent a great development not only in traditional areas such as coagulation, solid/liquid separation, oxidation, adsorption etc., but also in the emerging multidisciplinary fields. Nowadays, an increasing number of chemists and chemical engineers has broadened research interests. Biochemical/biological technologies, ecological technologies and process modeling and simulation have become important branches of chemical technologies. Such a tendency has been well reflected in the activities of the Group of Chemists for Water and Wastewater Treatment (GCWWT), a subdivision of Chinese Chemical Society (CCS). GCWWT started to organize its biennial conference on chemical technologies for water and wastewater treatment in 1992. This event periodically brought scientists and engineers together for exchanging latest information on the progress in research and engineering practice covering a broad range of related technologies. To create an opportunity for international academic exchange in these fields, GCWWT organized its 9th biennial conference as an international conference under the title of International Conference on Advances in Chemical Technologies for Water and Wastewater Treatment (CSC-XIAN2008). The conference was held in Xi'an, China in May 2008 with the support of CCS, National Natural Science Foundation of China (NSFC), Japan Science and Technology Agency (JST), and Xi'an University of Architecture and Technology (XAUAT).

A number of world famous scientists in the field of water and wastewater treatment, such as Professor Charles R. O'Melia from USA, Professor Peter Wilderer from Germany, Professor John Gregory from UK, Professor David Waite from Australia, Professor Hongxiao Tang from China, and others from Japan, Norway, Korea, etc. attended the conference and gave keynote lectures on their latest research progress. There were also more than 70 oral presentations and 40 poster presentations at the conference by delegates from 12 countries and regions in four sessions: Coagulation and Separation Technologies, Chemical Oxidation Technologies, Biochemical and Biological Treatment Technologies, and Technology Improvement and Process Modeling. Fruitful results were obtained and latest information was exchanged during the conference.

Nine articles from the conference are compiled in this issue of Journal of Environmental Sciences based on the recommendation of Scientific Committee of the conference and results of peer review. Most of these articles deal with the topic of coagulation or colloidal chemistry which is the traditional area of chemical technologies, and some deal with membrane and advanced oxidation technologies. New insights into combination of different technologies and application of advanced analytical or monitoring methods are the main feature of these articles.

We are especially grateful to Professor John Gregory and Professor TorOve Leiknes, two keynote lecturers at the conference for their contribution of full articles in Journal of Environmental Sciences.

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On behalf of the Organizing Committee, CSC-XIAN2008