



Preface

Biocatalysis: An important way to environmentally benign and sustainable development of our common globe

In the new century, resource shortage, environmental pollution and energy crisis are the common problems for all of over the world. Biotechnology, especially genomics, metabolic engineering, and biochemical engineering have being developed so quickly in recent years that the roles they will play in dissolving the above critical problems are highly expected. YABEC (Young Asian Biochemical Engineering Community), started in 1995, consists of young and young-minded researchers and experts in the fields of biotechnology and biochemical engineering in East Asia, which is one of the most active groups. Close partnership between Biochemical Engineers in East Asia has been built up through the annual meetings once a year. The 11th YABEC symposium (YABEC'05) was held successfully in Beijing from 24 to 26 October in 2005. About 200 participants from Japan, Korea, Taiwan region and mainland of China attended this symposium to exchange their research activities and innovations. The symposium included five sections: biocatalysis, cell and metabolic engineering, bioprocess, genetic engineering, biomaterials and tissue engineering. The main way for the production of bioproducts is biocatalysis, including screening of new biocatalysts, production of enzymes by recombinant DNA technology and the bioprocesses. There were many papers reporting the application of biocatalysts, such as the production of biodiesel by lipase catalysis and enzymatic synthesis of natural products. Some new techniques for enzyme immobilization such as the immobilization on nanoparticles and cross-linking of enzymes also appeared in this symposium.

It is our great honor to publish a special issue for YABEC'05 in this distinguished journal. This special issue for YABEC'05

gives a brief introduction to the research status of Asian biotechnology and biochemical engineering, especially regarding the research activities of biocatalysis in this region.

On behalf of the organizing committee of YABEC'05, we would like to express our sincere thanks to Prof. Yasuhisa Asano and Elsevier staffs for giving us this great opportunity and helps during the edition process of this special issue. We also thank National Natural Science Foundation of China, Natural Science Foundation of Beijing Municipality, EPS Co. Ltd. (Japan), BASF and Novozymes for their supports.

Finally, YABEC would like to appreciate all the members from every part in East Asia and like to establish partnership with the other research groups in the whole Asia.

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