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Special issue on environmental biotechnology

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Introduction

This collection of 25 reviews and research articles reflects the diversity of presentations at the 7th Symposium of the International Society for Environmental Biotechnology, 2004 that was held in Chicago, USA. They also provide a good introduction to current thinking in this rapidly changing field. The previous symposium was held in Veracruz, Mexico and the 10–14 July 2006 meeting will be in Leipzig Germany (URL: <http://www.ufz.de/index.php?de=2575>; e-mail: ulrich.stottmeister@ufz.de).

A large range of topics were organized around themes, as are the articles in this issue. The opening keynote paper by Princess Chulabhorn Mahidol of Thailand places Environmental Biotechnology in a context where nations (whether developing or with great available resources) need to address the problems of

environmental pollution and provide technical answers plus training of young people. Dr. H. Zedan represents the United Nations Convention on Biological Diversity on these matters.

Technical issues included microbial bioremediation and phytoremediation, and reports marking progress in differing aspects are included. The emphasis on phytoremediation, frequently using genetically modified plants (GMOs), opens new possibilities and new regulatory concerns. Specific targets for environmental biotechnology include organic compounds—both “natural” and “xenobiotic”—some with organic rings and others that are chlorinated, as well as removal of toxic heavy metals. The problems and efforts addressing them are major. A general concern was that (after many years of work) we are still more talking about the potential methods rather than advancing beyond natural processes that slowly clean many sites.

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