Preface

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The regular increase in urban and industrial activities around the globe has largely affected our environment. The mining, petrochemicals, electroplating, pharmaceuticals and agro-based industries produce large amounts of waste and their entry into terrestrial and aquatic habitats lead to environmental pollution. Varied types of agricultural, forestry, mining and petrochemical processing wastes represent useful material resources and therefore need proper management to control environmental pollution and avoid the wastage of valuable natural resources.

In the absence of inadequate practices for resource management, most of developing countries suffer from environmental problems. Thus it is necessary to have simple and economically viable processes for environmental management and resource recovery and their utilization. In this concern microorganisms and their enzymes may contribute largely to overall problems of resource recycling and conservation. Scientists from different countries presented their works aiming at environmental pollution, its management and resource recovery during BioMicroWorld 2009, the third International Conference on Environmental, Industrial and Applied Microbiology,

held in Lisbon, Portugal, during 2–4 December 2009. Keeping in view the quality of presented research work, the scientific advisory committee recommended that it would be worth to publish some of the research papers in an international Journal, that's too after following the reviewing process. The organizers of BioMicroWorld approached the journal *Biodegradation*, which agreed to bring out a special issue.

This special issue of *Biodegradation* presents recent findings about characterization of microbial community structure and population dynamics, neustonic versus epiphytic bacteria of eutrophic lake, ecology of coarse wood decomposition, microorganisms and their enzymes involved in degradation of lignocellulosics, hydrocarbons and other toxic compounds. This issue covers not only aspects related to microbial ecology but applied environmental microbiology as well, such as; production of xylitol, cattle feed and winery waste water treatment.

These papers convey the current and developing methods to study microbial communities and possible microbial biotechnologies for pollution control and resource management.

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