

## EDITORIAL

# 3<sup>rd</sup> International Symposium on Environmental Management, SEM – Towards Sustainable Technologies

This special issue of *Chemical and Biochemical Engineering Quarterly* journal consists of 15 selected papers which were presented at the 3<sup>rd</sup> International Symposium on Environmental Management (SEM2011) – Towards Sustainable Technologies, held in Zagreb, Croatia, from October 26–28, 2011. SEM2011 was organized by Faculty of Chemical Engineering and Technology of the University of Zagreb in cooperation with: Hrvatske vode, Legal entity for water management (HR); Department of Civil & Environmental Engineering, College of Science, Engineering and Technology, Jackson State University (USA); Croatian American Society (HR); Slovenian Biomass Association (SLO); and ODRAZ, NGO, Sustainable Community Development (HR). The conference brought together more than 250 environmental professionals and experts, involved in the application of environmental assessment and management in businesses, scientific institutions, governmental agencies and civil society organizations from 27 countries all over the world. The conference was traditionally devoted to the fundamental aspects and practical application of environmental management.

The principle objective of the SEM2011 conference was to give a wide overview about recent achievements in the field of the environmental management and to discuss the latest advances. The event was directed at providing a venue for the fruitful interaction and exchange of ideas, at estimating and discussing the current state of novel technologies and new methods and approaches applied through this multi-, inter and cross-disciplinary field of environmental management and protection. The plenary lecturers, invited lecturers, and all conference participants marked the high level of the presentations

More than 50 papers, which shorter versions were published in Conference proceedings, have been considered for the publication in the *Chemical and Biochemical Engineering Quarterly* journal. After the strong conference and journal reviewing, the most interesting papers dealing with the new solutions on environmental management, covering various engineering aspects, have been selected. Hence, five original papers are dealing with the *water and wastewater treatment*: pharmaceuticals removal by membrane processes; nitrate removal by combined biological/physical processes; and heavy metals removal by adsorption on waste material, natural zeolites and clays including the modeling and optimization of applied processes. Two papers are focused on the application of *new materials for air pollution and control* including photocatalytic treatment of volatile organic compounds and desulfurization using derived mixed metal oxide sorbents. *Waste management* is covered by four papers focused on treatment of tobacco dust and its leachate, chemical recycling of PET bottles, and biomass processing. Development of *new "green" materials and technologies* are represented through four papers dealing with eco-cement development from industrial waste, improvement of Portland cement, alternative processes in petrochemical industry for the removal of sulfo-organic pollutants, and development of new sulfur-oxidizing bacteria.

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