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## **FOREWORD: Treatment and Valorisation of Waste and Wastewater for the Production of Energy/Fuels and Useful Materials**

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## FOREWORD:

### Treatment and Valorisation of Waste and Wastewater for the Production of Energy/Fuels and Useful Materials

WasteEng 2008, 3-5 June 2008, Patras (Greece)

The WasteEng Conference Series (<http://www.wasteeng.org/>) promotes the sustainable Valorisation of Waste and Biomass for the production of Energy and useful materials, with emphasis on processes and practices that reduce emissions and life cycle assessment of technologies and end-of-pipe products. The very successful 2008 issue (WasteEng08, Patras Greece) has shown the richness of this ever growing field. This special issue presents a selection of contributions dealing with the utilization of various processes for the effective treatment and the production of energy/fuels and useful materials from waste and wastewaters. For this purpose, this issue covers a wide variety of cases (waste and biomass streams), processes and approaches.

In the area of solid waste management the work of Abeliotis *et al.* presents decision support tools for solid waste management. The work of Giannopoulou *et al.* shows how metallurgical solid wastes and by-products may be utilized for the production of inorganic polymers. Zaharaki and Komnitsas demonstrate the possibility of improving slag-based inorganic polymers through additives. Van Deventer *et al.* and Nugteren *et al.* present their findings regarding the production of geopolymers from fly ash. Tsatsarellis and Karagiannidis examine the biogas potential from Hellenic landfills. Since composting is an important process for the management of the organic fraction of solid waste, Henon *et al.* examine the impact of air distribution during composting.

In the area of soil remediation, Millioli *et al.* examine the possibility of improving the biodegradability and reducing toxicity of crude-oil contaminated soil by rhamnolipid addition, while Petavy *et al.* present an approach for treating stormwater sediments.

The production of useful adsorbents from biomass and waste is an important perspective. Vazquez *et al.* present the possibility of adsorbing cadmium ions and phenol using castanea sativa shells, while Chojnacka *et al.* consider the ability of wood and bone ash to remove heavy metals from solution. Finally, Shareefdeen considers the production of biofilter media for the removal of hydrogen sulphide, an important nuisance.

Dhodapkar *et al.* present their finding in using super absorbent polymers for water purification, while Murthy and Chaudhari use ultrafiltration and reverse osmosis for the purification of distillery spent wash.

Finally, from the area of special wastes management, Masavetas *et al.* use electrodeposition for the recovery of copper from printed circuit boards.

In summary, this special issue gathers papers addressing the valorization of various wastes and wastewaters using various technologies. This makes this issue of the WasteEng08 Conference on processes for the valorization of Waste and Biomass into energy and useful materials a very interesting contribution.

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