

ANNOUNCEMENT

FESE's Best Papers of 2013

Frontiers of Environmental Science & Engineering (FESE) is pleased to announce the best paper award of 2013. In the year of 2013, we published 95 research and review papers in Volume 7 of *FESE*. We also organized two special issues, "Advanced materials: adsorbent and catalyst for environmental application" in Issue 3 and "Water-Energy-Food security nexus" in Issue 5. In order to acknowledge the past contribution and encourage more submission, *FESE* editorial board chose three distinguished papers from all published papers of 2013 for their outstanding achievement in the current serious environmental issues and practical technology for pollutants treatment. We hope these papers will attract more attention to *FESE* and promote the innovation in the environmental research field.

Following are the titles and abstracts of the three best papers of 2013:

Ruiping LIU, Wei XU, Kun WU, Wenxin GONG, Huijuan LIU, Jiuwei QU. Species distribution of arsenic in sediments after an unexpected emergent discharge of high-arsenic wastewater into a river. *Front. Environ. Sci. Eng.* 2013, 7(4): 568–578. DOI: 10.1007/s11783-013-0514-3

Anthropogenic As pollution has aroused great attention especially in developing countries including China. This paper investigated the species distribution of arsenic in sediments after an unexpected emergent discharge. The arsenic speciation in sediment is found to be critical to evaluate the effect of the employed approach and to predict the potential environmental fate of the sediment. The results is helpful for understanding the transformation of As and its risk assessment. Meanwhile, this paper is an important guide to the peer to find good idea from the real environment.

Xinfeng WANG, Wenxing WANG, Likun XUE, Xiaomei GAO, Wei NIE, Yangchun YU, Yang ZHOU, Lingxiao YANG, Qingzhu ZHANG, Tao WANG. Size-resolved aerosol ionic composition and secondary formation at Mount Heng in South Central China. *Front. Environ. Sci. Eng.* 2013, 7(6): 815–826. DOI: 10.1007/s11783-013-0503-6

The size-resolved aerosol ionic composition in the ambient air is complex, and little studies were conducted for aerosol ionic composition and the secondary formation in the upper boundary layer of South Central China. This paper found that when the air masses from Southeast Asia prevailed, intensive biomass burning led to elevated concentrations of sulfates, nitrates, ammonium, potassium, and chloride in the fine particles at Mount Heng. It will undoubtedly be helpful to understand the aerosol ionic composition and secondary formation mechanism and contribute to strategies for improvement of air quality.

Fei HUA, Hongqi WANG. Selective pseudosolubilization capability of *Pseudomonas* sp. DG17 on *n*-alkanes and uptake mechanisms analysis. *Front. Environ. Sci. Eng.* 2013, 7(4): 539–551. DOI: 10.1007/s11783-013-0498-z

This study represents a detailed investigation into the processes through which insoluble compounds, in this case longer chain hydrocarbons, are biodegraded. This is a very basic study, which is needed to better understand the series of processes affecting the kinetics of degradation of oil and other such contaminants in the soil and groundwater, as well as in treatment processes. A good understanding of the manner in which organisms degrade such materials by excreting biosurfactants to complex the compounds into small droplets which accumulate on the cell surface, and from there transport them across the cell membrane to be metabolized for energy is of scientific as well as practical interest.

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Editor-in-Chief
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