

FESE's Best Papers of 2010

Frontiers of Environmental Science & Engineering in China (FESE) is pleased to announce the best paper award of 2010. As a newly-created, peer-reviewed journal aiming to cover all of the main fields of environmental research, we have witnessed rapid growth of the journal as judged by both the quality and quantity of its publications and the attention it draws from the scientific community. To recognize the contribution of researchers to our journal and to encourage more in the future, here we launch the best paper award to honor the research papers that have the highest potential to advance the research in environmental science & engineering. All of the research papers published in 2010 have been subject to rigorous review by the editorial board, resulting in three awardees. We hope this brings attention to the papers of the highest caliber and encourages excellent environmental research.

Perez-Elvira S I, Fdz-Polanco M, Fdz-Polanco F. Increasing the performance of anaerobic digestion: Pilot scale experimental study for thermal hydrolysis of mixed sludge. *Front. Environ. Sci. Engin. China*, 2010, 4(2): 135–141

Utilization and disposal of excess sludge is an important part in wastewater treatment plant. This paper describes a pilot plant operation combining thermal hydrolysis and anaerobic digestion for raising utilization efficiency. It provides valuable clues for practical application, which represents an important step forward for waste management combined with biogas recovery.

Kwon B, Park N, Cho J. Effects of a dynamic membrane formed with polyethylene glycol on the ultrafiltration of natural organic matter. *Front. Environ. Sci. Engin. China*, 2010, 4(2): 172–182

The natural organic matter in drinking water is a potential hazard as a precursor to the formation of disinfection by-products. The authors analyzed an ingenious design of using PEG dynamic membrane to remove natural organic matter from water. The idea is original and the results are useful for understanding the fouling mechanisms and the optimization of ultrafiltration process using membranes.

Li Z, Deng S, Zhang X, Zhou W, Huang J, Yu G. Removal of fluoride from water using titanium-based adsorbents. *Front. Environ. Sci. Engin. China*, 2010, 4(4): 414–420

High fluoride concentration of groundwater is a worldwide problem, especially for developing countries. This article presents a thorough examination of a new class of potential adsorbents for fluoride removal from water, which offers much promise for improvement in terms of efficiency and cost. Using titanium-based adsorbents is remarkable in novelty and the method is simple and easy, making this technology appealing.

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