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ANNOUNCEMENT

FESE's Best Papers of 2018

Frontiers of Environmental Science & Engineering is pleased to announce the best paper awards for 2018. In 2018, we published 92 research and review papers in Volume 12 of *FESE*. In order to acknowledge the past contributions and encourage more submissions, the *FESE* editorial board selected two distinguished papers for their profound insights into current serious environmental issues or contributions to practical treatment technology. We hope these papers will inspire and promote innovation in the environmental science and engineering research field.

Following are the two best papers of 2018:

Zechong Guo, Lei Gao, Ling Wang, Wenzong Liu, Aijie Wang. Enhanced methane recovery and exoelectrogen-methanogen evolution from low-strength wastewater in an up-flow biofilm reactor with conductive granular graphite fillers. *Front. Environ. Sci. Eng.* 2018, 12(4): 13. https://doi.org/10.1007/s11783-018-1074-3

Energy production in the wastewater treatment is an important hot environmental issue nowadays, and it is harder to harvest methane from low-strength wastewater. This study innovatively applied conductive granular graphite to an up-flow biofilm reactor. With enhanced direct interspecies electron transfer, both the methane production rate and the COD removal rate were increased significantly. Output of the study implied a novel and practical strategy for efficient methane recovery, and it is of great potential for application in future.

Taro Miyoshi, Thanh Phong Nguyen, Terumi Tsumuraya, Hiromu Tanaka, Toru Morita, Hiroki Itokawa, Toshikazu Hashimoto. Energy reduction of a submerged membrane bioreactor using a polytetrafluoroethylene (PTFE) hollow-fiber membrane. *Front. Environ. Sci. Eng.* 2018, 12(3): 1. https://doi.org/10.1007/s11783-018-1018-y

High energy consumption hampers the widespread application of membrane bioreactors. This study modified a hollow-fiber membrane element that was comprised of polytetrafluoroethylene to take advantage of the outstanding mechanical strength. Results from a pilot operation showed the energy consumption was reduced to less than 0.4 kWh/m^3. The approach has sound application potential in practical wastewater treatment plants.

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