

Volatile Organic Compound Emission Reduction and Water Reuse in Chemical Manufacturing Using MBR

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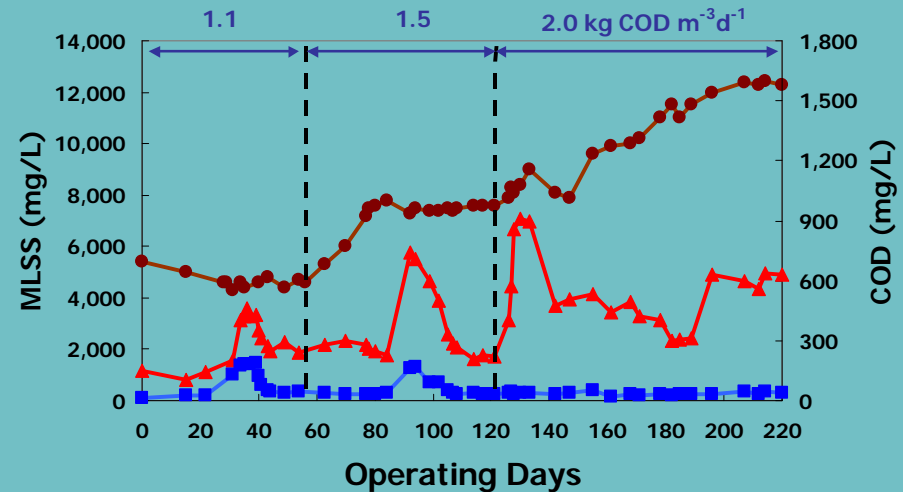
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Bench-scale MBR system.

Synopsis: Low VOC emissions were observed in bench scale MBRs treating chemical manufacturing industry wastewaters. Observed emission rates were in agreement with model results. High quality effluents produced could be reused in the manufacturing process. The effect of organic loading rate, process instabilities and dissolved oxygen concentration on COD removal, VOC emission rate and permeate flux was investigated.



MLSS (●) soluble (▲) and effluent (■) COD at varying organic loading rates. Influent COD was ~7,000 mg/L.

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Min, K. and S.J. Ergas (2006) Volatilization and Biodegradation of VOCs in Membrane Bioreactors, *J. Water, Air & Soil Pollution*, 6:83-96.

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