

عنوان مقاله:

Ambazari lake water treatment using hybrid membrane bioreactor and nanofiltration system

محل انتشار:

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خلاصه مقاله:

Advanced water treatment methods are needed for good quality of lake water. In this study, the hybrid membrane bioreactor (MBR) and nanofiltration (NF) system was investigated to treat Ambazari lake water. The performance of the hybrid system was checked as removal efficiency of chemical oxygen demand (COD), total dissolved solids (TDS), biochemical oxygen demand (BOD), and permeate flow rate (PFR). All parameters in the hybrid MBR-NF system were operated batch-wise for 5 h. The COD and BOD removal efficiencies were observed to be 95.67 % and 94.64 %, respectively. TDS removal efficiency was obtained to be 92.33%. The highest TSS removal efficiency was reported to be 36.0 % for airflow rates of 1.0 L/min. The pH variation at different airflow rates was found to be significantly low. Hence, from above information, we conclude that this hybrid system treated Ambazari lake water successfully. The treated water had high quality as good as potable water

کلمات کلیدی:

Membrane bioreactor, Nanofiltration, Wastewater, Hybrid treatment systems

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