

عنوان مقاله:

Perspectives on Membrane Bioreactor Potential for Treatment of Pulp and Paper Industry Wastewater: A Critical Review

محل انتشار:

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خلاصه مقاله:

The pulp and paper wastewater contains various organic and inorganic compounds in considerable amounts. Membrane bioreactor (MBR) technology has been used extensively for various industrial wastewater treatments due to its ability to produce appropriate effluent according to water quality regulations. Pulp and paper wastewater can be successfully treated by MBR in different conditions according to the wastewater and MBR characteristics. However, a major drawback in the use of MBR is membrane fouling, which leads to the reduction of effluent permeate flux. Fouling factors need to be considered because they are the major problems affecting the MBR performance. Besides, the performance of MBR can be increased by wastewater pretreatment methods and addition of a fouling reducer. In this paper, the application of aerobic and anaerobic MBR for pulp and paper wastewater treatment and membrane fouling has been reviewed. It has been found that the advantages of MBR over conventional biological treatment processes have made this technology popular for pulp and paper wastewater treatment.

کلمات کلیدی:

Pulp and Paper Wastewater, Membrane bioreactor, Membrane Fouling, Activated sludge

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