عنوان مقاله:

Comparsion Between Air Backwashing and Chemical Cleaning on Fouling in Hollow Fiber Membrane Bioreactors ((MBRs

محل انتشار:

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نویسندگان:

Alireza Hemmati - *Research Center for Membrane Separation Processes Iran University of Science and Technology (IUST), Narmak, Tehran, Iran*

Adel Zarabpour - *Research Center for Membrane Separation Processes Iran University of Science and Technology (IUST), Narmak, Tehran, Iran*

Ehsan Mazinani - *Scool of Chemical Engineering University of Tehran, Tehran, Iran*

Toraj Mohammdi - *Corresponding Author Address a: Research Center for Membrane Separation Processes Iran University of Science and Technology (IUST), Narmak, Tehran, Iran*

خلاصه مقاله:

Hollow fiber membranes are used frequency in membrane bioreactors (MBRs). Membrane fouling is the most important drawback and the toughest challenge in operation of hollow fiber MBRs. The aim of this work was to compare the MBRs performance at two different states. Two MBRs were employed for this propose. In the first one, compressed air was used as backwashing system and hollow fiber membrane fouling was observed during one month operation. The second MBR was operated for one month without backwashing. The results showed that 2-4 times a day air backwashing reduces the membrane fouling and as a result the MBR can be operated without chemical cleaning. Chemical cleaning employed after 20 days operation of the MBR operated without air backwashing. In both systems, more than 95% COD and 98% phenol removals were observed

کلمات کلیدی:

fiber membranes, Fouling, membrane bioreactor, Phenolic wastewater