

## عنوان مقاله:

Assessment of MBRs Technology for Domestic Wastewater Treatment

## محل انتشار:

سومین کنفرانس مدیریت منابع آب (سال: 1387)

تعداد صفحات اصل مقاله: 8

## نویسنده:

## خلاصه مقاله:

Membrane bioreactors (MBRs) present a means of biologically treating high COD or BOD wastewaters. Fouling is the general term given to those phenomena responsible for increasing membrane hydraulic resistance. It can be reduced by maintaining turbulent conditions, operating at sub-critical flux and/or by the selection of a suitable fouling-resistant membrane material. Energy costs for the two process configurations for MBRs, submerged and side-stream are reported with particular attention paid to aeration and recycle pumping costs. The submerged configuration operates more cost effectively than the side-stream configuration with respect to both energy consumption and cleaning requirements, with aeration providing the main operating cost component as it is required for both mixing and oxygen transfer. On the other hand, the lower flux under which the submerged system operates implies a higher membrane area and thus a higher associated capital cost. It is concluded that the MBR is a highly effective treatment process for wastewater treatment in areas requiring a high quality effluent (such as discharge to bathing waters or water reuse) or specialization in the microbial community (e.g. high strength liquors, effective nitrification).

## کلمات کلیدی:

Bacteria and virus rejection, Biological removal, Energy costs, Membrane

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/50365>

