Studies of Turbidity in the Ultrasonic/Ceramic Membrane Combined Process

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The ultrasonic/ceramic membrane combined process was employed to have a better effect of the filtrated water quality. We set the ultrasonic frequency at 20 kHz and the corresponding power at 2kW. Innovatively we probed into different range of molar weight of organic matters in the filtrated water, and results showed that the ultrasonic/ceramic membrane combined process could change the distribution of micromolecule organic matters. We found that with the increasing of turbidity of raw water, the membrane flux decreased rapidly but the quality of filtrated water changed little. Studies on different range of molar weight showed that for the organic matters whose molar weight were below 1kD, higher turbidity had an optimistic effect on removing them while for those whose molar weight were above 1kD, the effect was reverse.

Keywords: Ultrasonic; ceramic membrane; molar weight

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