

On the possibility of using MD for water production from domestic wastewater: system analysis

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One of the bottlenecks of membrane distillation to apply in water production, mainly from a room temperature feed water, is the energy consumption stemming from rising the temperature to a corresponding vapor pressure temperature. In contrast, one of the advantages of the process is, the possibility of producing water from low grade heat using large membrane area. In this study we analyze the different parameters of the system, including temperature, velocity, heat transfer coefficient, and study the possibility of applying MD for low grade energy domestic wastewater from bathrooms in the households of Seoul with the help of a large membrane area.