Moringa oleifera coagulation as pretreatment prior to microfiltration for membrane fouling mitigation

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Supporting Information

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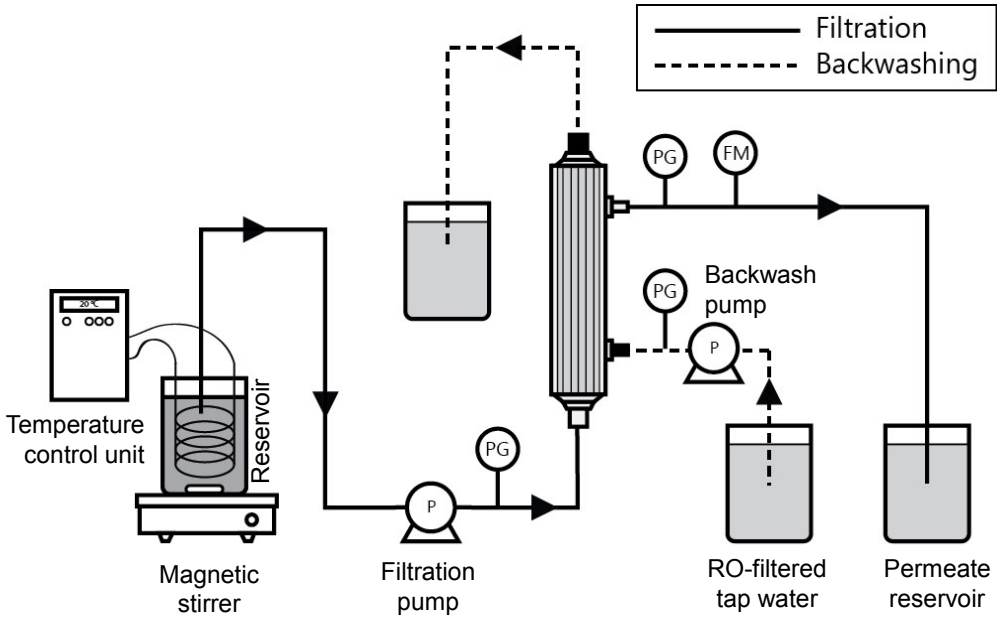

Fig. 1 – Schematic diagram of the MF system.

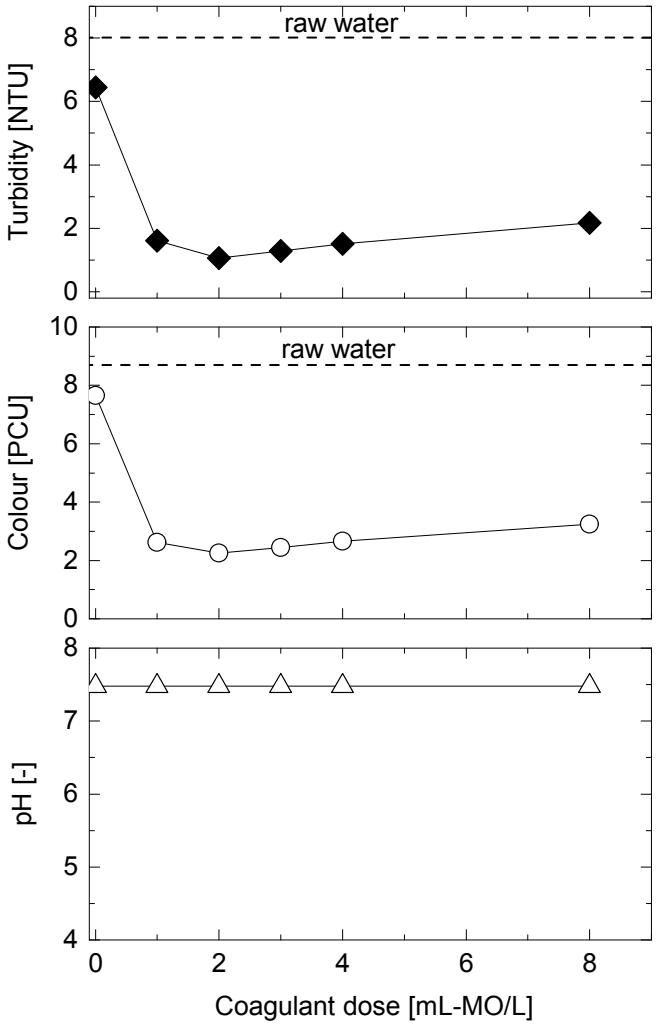

Fig. S2 – Removal of turbidity and color and change in pH in the surface water at various MO coagulant doses (initial turbidity = 8.0 NTU and initial colour = 8.7 PCU).

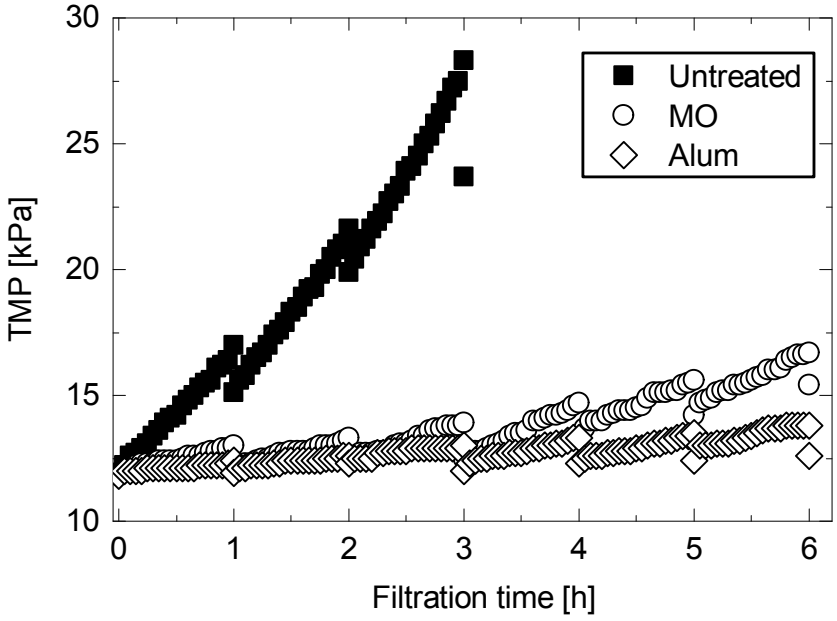

Fig. S3 – Comparison of fouling development in MF treatment without pretreatment, with MO coagulation at 2 mL-MO/L or with alum coagulation at 4 mg-Al/L for the second batch of filtration experiments (permeate flux = 140 L/m^{2}h, backwashing flux = 280 L/m^{2}h and backwashing time = 1 min).

Table S1 – Water quality before and after coagulation at their optimum doses (2 mL-MO/L and 4 mg-Al/L) for water samples used for zeta potential and particle size analysis.

Parameter	Untreated river water	MO treated river water	Alum treated river water
Turbidity (NTU)	7.9	1.0	0.1
Colour (PCU)	8.5	2.5	0.8
pH	7.1	7.1	6.0