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Enhancing pressure retarded osmosis performance with low-pressure nanofiltration pretreatment: Membrane fouling analysis and mitigation

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### ACCEPTED MANUSCRIPT

#### Enhancing pressure retarded osmosis performance with low-pressure nanofiltration

#### pretreatment: membrane fouling analysis and mitigation

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#### Abstract

The advancement of pressure retarded osmosis (PRO) has drawn much attention recently to its feasibility of practical operation. Membrane fouling is one of the main challenges, especially when real wastewater is used as feed solution in the PRO system. Low pressure nanofiltration (NF) pretreatment was thus adopted in current study to pretreat the wastewater reverse osmosis (RO) brine collected from a wastewater treatment plant prior to feeding to

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