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Alkali-assisted membrane cleaning for fouling control of anaerobic ceramic membrane bioreactor

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Abstract: In this study, a chemically enhanced backflush (CEB) cleaning method using NaOH solution was proposed for fouling mitigation in anaerobic membrane bioreactors (AnMBRs). Ex-situ cleaning tests revealed that NaOH dosages ranging from 0.05 to 1.30 mmol/L had positive impacts on anaerobic biomass, while higher dosages (>1.30 mmol/L) showed inhibition and/or toxic impacts. In-situ cleaning tests showed that anaerobic biomass could tolerate much higher NaOH concentrations due to the

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