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Membrane Fouling Mitigation by NaClO-Assisted Backwash in Anaerobic Ceramic Membrane Bioreactors for the Treatment of Domestic Wastewater

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Highlights

A series of $C_{backwash}$ was used to backwash ceramic membrane in AnCMBR

$C_{backwash}$ used in this study was 0 Ultrapure water, 0.05, 0.25, 1 and 10 mg/L ppm NaClO solutions were used for backwash

Low concentrations of $C_{backwash}$ NaClO enhanced microbial activities and fouling mitigation

High concentrations of NaClO $C_{backwash}$ led to cell lysis and exacerbated fouling

Optimal $C_{backwash}$ in this study was 1 mg/L: highest $C_{backwash}$ that did not inhibit the microbial activities

Abstract

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