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**Biologically induced mineralization in anaerobic membrane bioreactors:  
Assessment of membrane scaling mechanisms in a long-term pilot study**

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**Abstract**

Herein, we report on a mechanism of inorganic fouling observed in a pilot-scale anaerobic membrane bioreactor (AnMBR) treating high strength leachate from domestic food waste. Long-term operation (around 700 days) of the AnMBR encountered frequent, sudden irreversible fouling events driven by biologically induced mineral scaling which required intense chemical cleaning to recover membrane permeability. Mineral scale formation occurred on the surface and within pores of 100 kDa ultrafiltration (UF) membranes. The UF membrane rejected phosphorus, calcium and magnesium up to 97, 92 and 60 percent,

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