Potential of anaerobic co-fermentation in WWTP: A review

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Introduction

Anaerobic fermentation (not AD) is a key biotechnology for biorefinery applications

Why co-fermentation?

Primary and WAS have a relatively low fermentation yield.



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Highest fermentation yields have been

Support biological nutrient removal/recovery

obtained at pH ~7 and 35 °C.

- Mixing ratio between main substrates have an impact on fermentation yield and profile
- Operational conditions (OLR, HRT, T, pH) need to maximise fermentation yield and limit methanogens proliferation.
- More research is needed from the continuous reactors operation.

CO_2 PT Wastewater Primary Secondary Anoxic Aerobic settler settler Thickener Co-substrate Biogas VFA-rich stream Anaerobio Centrifuge Centrifuge Co-fermentation digestion Solid fertilizer

Produce polyhydroxyalkanoates



Further discussion

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Review

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