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Depth-resolved microbial community analyses in the anaerobic co-digester of dewatered sewage sludge with food waste

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1 **Depth-resolved microbial community analyses in the**
2 **anaerobic co-digester of dewatered sewage sludge with food**
3 **waste**

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15

16 **Abstract**

17 This study evaluated the impacts of FW addition on co-digestion in terms of microbial
18 community. Anaerobic co-digestion (AcoD) reactors were conducted at gradually
19 increased addition of food waste (FW) from 0 to 4 kg-VS m⁻³ d⁻¹ for 220 days.
20 Although no markable acidification was found at an OLR of 4 kg-VS m⁻³ d⁻¹, the
21 unhealthy operation was observed in aspect of an inhibited methane yield (185 mL g⁻¹
22 VS_{added}), which was restricted by 40% when compared with its peak value.

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