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The dynamic changes and interactional networks of prokaryotic community between co-digestion and mono-digestions of corn stalk and pig manure

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Abstract

Anaerobic co-digestion is considered to be an efficient way to improve the biogas production. The abundance, dynamic and interactional networks of prokaryotic community were investigated between co-digestion and mono-digestions of corn stalk and pig manure in mesophilic batch test. Co-digestion showed higher methane production, and contributed to suitable microenvironment as well as stable prokaryotic community structure. The highest methane production was achieved with the highest relative abundance of *Methanosaeta*. Prokaryotic community in mono-digestions might inhibited by FA or FVFA. The functional modules in co-digestion and mono-digestion of pig manure clustered together with bigger size

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