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High-solid anaerobic digestion of corn straw for methane production and pretreatment of bio-briquette

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Abstract:

In this study, an integrated process was developed to produce methane and high-quality bio-briquette (BB) using corn straw (CS) through high-solid anaerobic digestion (HS-AD). CS was anaerobically digested by using a leach bed reactor at four leachate recirculation strategies. After digesting for 28 days, highest methane yield of 179.6 mL/g-VS, which corresponded to energy production of 5.55 MJ/kg-CS, was obtained at a higher initial recirculation rate of 32 L-leachate per day. Compared

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