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Use of solid residue from thermal power plant (fly ash) for enhancing sewage sludge anaerobic digestion: Influence of fly ash particle size.

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Abstract

The influence of fly ash particle size on methane production and anaerobic biodegradability was evaluated. Assays with different fly ash particle sizes (0.8 to 2.36 mm) at a concentration of 50 mg/L were ran under mesophilic conditions. In anaerobic processes operating with fly ash, greater removal of both volatile total and suspended solids, chemical oxygen demand (total and soluble) was achieved, with an increase of methane production between 28% and 96% compared to the control reactors. The highest increase occurred at ash particles sizes of 1.0-1.4 mm. The metal concentrations

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