**Synergetic effects on methane yield from sugarcane press mud co-digested with vinasse.**

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**Abstract**

Sugarcane press mud- solid residue obtained by the vacuum filtration of the settled cake in the clarification process of the cane sugar juice-, and vinasse- liquid waste from alcohol production-, are pollutant highly streams still only marginally exploited potential as feedstock for conversion processes. Both residues were blended in different proportions, according to evaluate the synergetic and antagonistic effects of the mixture on the methane yield and the methane production rate.The biochemical methane potential was determined in batch assays under mesophilic conditions (37 ± 1 °C). The

maximum values for methane yield were found in the region between $V_{75:}P_{25}$ and $V_{50:}P_{50}$, with a value of 245 NmL $CH_4$ $g^{-1}$ $COD_{fed}$, resulting in increase between 5 and 6 % due to synergetic effects of the mixture. The methane production rate for V and most of its blends were significantly higher in comparison with press mud. Significant synergetic effects on methane production rate were not found.