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Abstract: **In order to investigate the effects of feedstock ratio and organic loading rate (OLR) on the anaerobic mesophilic co-digestion of rice straw (RS) and pig manure (PM), batch bottle tests (2.5 L) were carried out at volatile solid (VS) ratios of 0:1, 1:2, 1:1, 2:1, and 1:0 (RS/PM), and continuous bench experiments (40 L) were carried out at OLRs of 3.0, 3.6, 4.2, 4.8, 6.0, 8.0, and 12.0 kg VS/(m^3•d) with optimal VS ratio. The results showed that the optimal ratio was 1:1 in terms of biogas yield. Stable biogas production with an average specific biogas production of 413 L/kg VS was obtained at an OLR of 3-8 kg VS/(m^3•d). Anaerobic co-digestion was severely inhibited by the accumulation of volatile fatty acids when the OLR was 12 kg VS/(m^3•d). Further, light and serious foaming were observed at**

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