



环境卫生工程

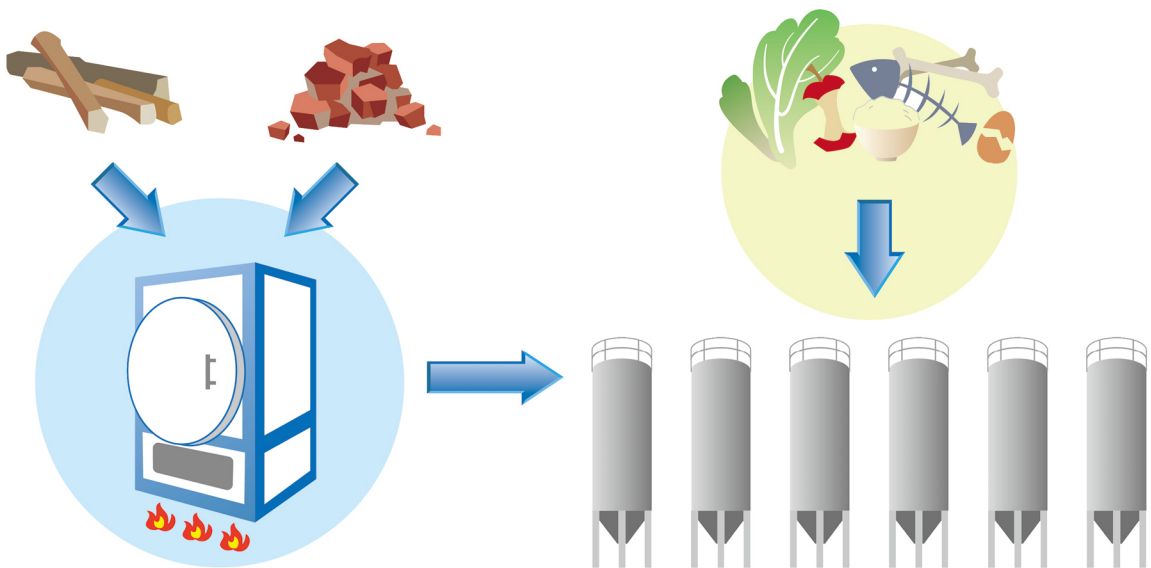
ENVIRONMENTAL SANITATION ENGINEERING

封面
文章

· 碳热还原铁基生物炭材料 (BC-ZVI) 对厨余垃圾厌氧消化的影响研究

赵光琪, 刘建国, 孔鑫, 陈超, 刘佃磊

导语 针对厨余垃圾厌氧消化反应器运行稳定性提升和甲烷转化促进机制开展研究, 选取赤泥、废铁泥、污泥和废木料, 通过碳热还原法制备得到 3 种复合材料: 碳还原赤泥 (BC-ZVI1)、碳还原铁泥 (BC-ZVI2) 和碳还原污泥 (BC-ZVI3), 研究其作为添加剂对厨余垃圾厌氧消化产甲烷的促进作用。结果表明: 与同类研究中常见的单独添加 BC 和 ZVI 相比, BC-ZVI1 的促进效果最佳, 甲烷产率和比甲烷活性显著提高。BC-ZVI1 对体系 pH 值的缓冲、氨氮的去除以及丁酸向乙酸转化的促进作用是其促进厨余垃圾厌氧消化产甲烷的主要原因。



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