

双循环流化床生物质解耦气化实验 Dual Fluidized Bed Biomass Decoupled Gasification Experiments

初雷哲 范晓旭 肖琦 郭东彦 贤建伟

山东省生物质气化技术重点实验室

关键词: 生物质 解耦气化 双循环流化床 实验

摘要: 对两种常见的生物质(玉米秸秆和稻壳)进行了能量平衡分析和计算,结果表明其中固定碳的燃烧足以维持挥发份热解所需能量。通过冷态实验得到了双床系统的循环和压力分布情况,证明可以通过该装置实现循环灰的传递并避免了燃烧炉和气化炉气体的掺混。生物质颗粒料的热态气化实验表明,可以由冷态平稳切换到气化工况并实现稳定运行,气化产生热值可以达到7 MJ/Nm³。 Energy balance analysis and calculations were made for two common kinds of biomass. It was proved that the heat of fixed carbon combustion was sufficient for volatile pyrolysis. The pressure distribution for cold cases in the dual fluidized bed was obtained by cold experiments. Finally, during the experiments of pellet gasification in dual fluidized bed, combustion conditions were able to be smoothly switched to gasification conditions with stable operation, and the calorific value of gas was able to reach 7 MJ/Nm³.

[查看全文 \(请使用Adobe Acrobat 6.0版本浏览\)](#) [返回首页](#)

[引用本文](#)

您是第 位访问者

主办单位: 中国农业机械学会 单位地址: 北京朝阳区北沙滩1号