

传递现象

间歇热源对吸附式制冷系统运行特性影响

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摘要 通过实验研究了双床连续吸附式制冷系统在间歇热源驱动下的动态运行性能, 获得了系统各参数在间歇热源驱动下的变化规律. 对有蓄热和无蓄热两种条件下系统在间歇热源驱动下的动态运行性能进行了比较, 分析了热源切断时间长短对系统解吸过程的影响, 并讨论了蓄热在热源切断期间的的作用, 指出添加蓄热设备是减小间歇热源不利影响的有效手段之一.

关键词 [吸附式制冷系统](#) [间歇热源](#) [蓄热](#)

分类号

INFLUENCE OF INTERMITTENT HEAT SOURCE ON OPERATING CHARACTERISTICS OF ADSORPTION REFRIGERATION SYSTEM

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Abstract

In this paper, the dynamic characteristics of a continuous adsorption refrigeration system driven by intermittent heat source are studied by means of experiments. The variation regulations of the operating parameters are obtained. Meanwhile the dynamic characteristics of the system with a heat accumulator are compared with that without a heat accumulator in the working condition with intermittent heat source. The influences of heat source cut-off time are analyzed and the role of heat accumulator during the heat source cut-off is discussed. From the results, a heat accumulator is found to be one of best devices to alleviate the bad influence of intermittent heat source on an adsorption refrigeration system.

Key words [adsorption cooling system](#) [intermittent heat source](#) [heat accumulation](#)

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