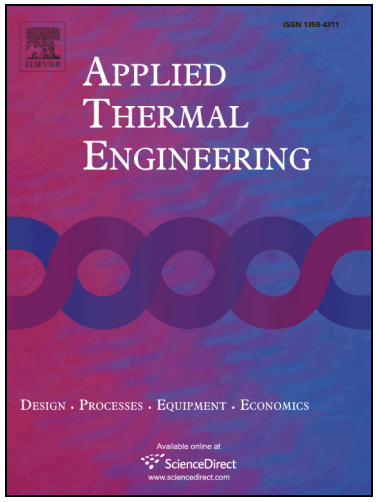

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Thermodynamic analysis of a low-temperature Organic Rankine cycle power plant operating at off-design conditions

Zhonglu He [a], Yufeng Zhang [a,b], Shengming Dong [a,b], Hongting Ma[a*], Xiaohui Yu [a,b], Yan Zhang [c], Xuelian Ma [a], Na Deng [a] ,Ying Sheng [a]

[a] School of Environmental Science and Engineering, Tianjin University, Tianjin, 300072, PR China

[b] Collaborative Innovation Center of Chemical Science and Engineering, Tianjin 300072, PR China

[c] School of Architecture, Tianjin University, Tianjin, 300072, PR China

Abstract: This paper deals with an experimental study on a 50-kW Organic Rankine cycle (ORC) power generation plant driven by low-grade heat source. Hot water boiler and solar-thermal system were used as the low-grade heat source providing hot water at temperature ranging from 65 to 95 °C. A twin screw compressor has been modified as the expansion machine in the ORC module and its expansion efficiency under variable operating conditions was tested in the experiments. This work was purposed to assess the ORC system and get the performance map at off-design operating conditions in

*Corresponding author. Tel: +86 022 27890131; Fax: +86 022 27890131.

E-mail address:mht116@tju.edu.cn.