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# Experimental and numerical investigation on the novel latent heat exchanger with paraffin/expanded graphite composite

Wenzhu Lin <sup>a</sup>, Qianhao Wang <sup>a</sup>, Xiaoming Fang <sup>a,b</sup>, Xuenong Gao <sup>a,b</sup>,  
Zhengguo Zhang <sup>a,b,\*</sup>

<sup>a</sup> Key Laboratory of Enhanced Heat Transfer and Energy Conservation, The Ministry of Education, School of Chemistry and Chemical Engineering, South China University of Technology, Guangzhou 510640, China

<sup>b</sup> Guangdong Engineering Technology Research Center of Efficient Heat Storage and Application, South China University of Technology, Guangzhou 510640, China

The corresponding author: Tel: +86-20-87112845; Fax: 86-20-87113870;  
E-mail: [cezhang@scut.edu.cn](mailto:cezhang@scut.edu.cn)\*

## Abstract

In this paper, a novel latent heat exchanger with two flow channels was investigated experimentally and numerically. The phase change material was filled in the annular tube, while the working fluid flow in the shell and tube side runner. The design of multi flow channels allow it apply into energy storage system with different working fluid. The paraffin/expanded graphite composite with phase changing temperature around 50°C was filled in the annular tubes. Heating and discharging tests have been performed in different flow rate. The numerical model was built and validated with

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