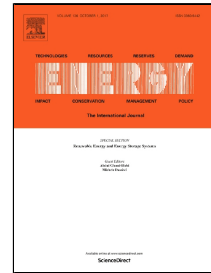


Accepted Manuscript

Heat transfer analysis of a new volumetric based receiver for parabolic trough solar collector

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PII: S0360-5442(17)31781-4
DOI: 10.1016/j.energy.2017.10.076
Reference: EGY 11720
To appear in: *Energy*
Received Date: 13 April 2017
Revised Date: 06 September 2017
Accepted Date: 17 October 2017

Please cite this article as: Man Fan, Hongbo Liang, Shijun You, Huan Zhang, Wandong Zheng, Junbao Xia, Heat transfer analysis of a new volumetric based receiver for parabolic trough solar collector, *Energy* (2017), doi: 10.1016/j.energy.2017.10.076

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Highlights

- A new volumetric based receiver was proposed for parabolic trough solar collector.
- A simplified heat transfer model was developed and verified to be accurate.
- Thermal performance of the new, conventional and nanofluid receiver were compared.
- Strategies for optimizing the new receiver were investigated and discussed.

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