

Accepted Manuscript

Research Paper

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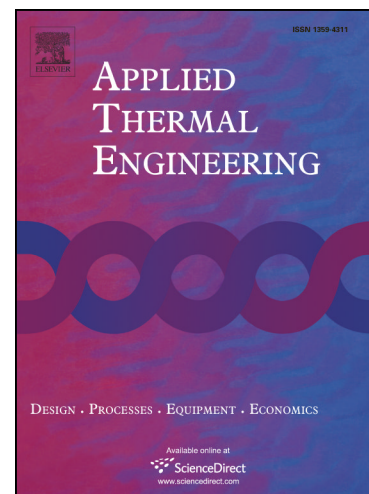
PII: S1359-4311(17)34800-7
DOI: <https://doi.org/10.1016/j.applthermaleng.2017.11.066>
Reference: ATE 11436

To appear in: *Applied Thermal Engineering*

Received Date: 20 July 2017
Revised Date: 8 October 2017
Accepted Date: 13 November 2017

Please cite this article as: L. Qiu, H. Zou, D. Tang, D. Wen, Y. Feng, X. Zhang, Inhomogeneity in pore size appreciably lowering thermal conductivity for porous thermal insulators, *Applied Thermal Engineering* (2017), doi: <https://doi.org/10.1016/j.applthermaleng.2017.11.066>

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Inhomogeneity in pore size appreciably lowering thermal conductivity for porous thermal insulators

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HIGHLIGHTS:

- Quantitative degradation effect of inhomogeneity in pore size is first revealed.
- Adaptable interfacial sensor technology is proposed to ensure accurate measurement.
- Ample models of heat transfer are compared to extract the inhomogeneity effect.
- This study opens up fresh opportunities for developing super thermal insulators.

ABSTRACT: It has been years since the concept that inhomogeneity in pore size has an adverse effect on the thermal transport came into view. Typically, although some porous materials possess the identical porosity, they could show a strong

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