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Pillow Plate Heat Exchanger Weld Shape Optimization Using Approximation and Parallel Parameterized CFD and Non-Uniform Rational B-Splines

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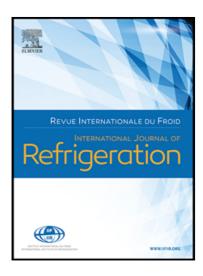
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Pillow Plate Heat Exchanger Weld Shape Optimization Using Approximation and Parallel Parameterized CFD and Non-Uniform Rational B-Splines

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Declaration of interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Abstract

Plate heat exchangers (PHXs) are compact with small approach temperature, and desirable thermal-hydraulic characteristics. It is greatly desirable to create novel PHX designs that utilize less material and less volume while attaining similar heat transfer performance and thus contribute significantly to energy conservation while lowering the environmental impact as well.

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