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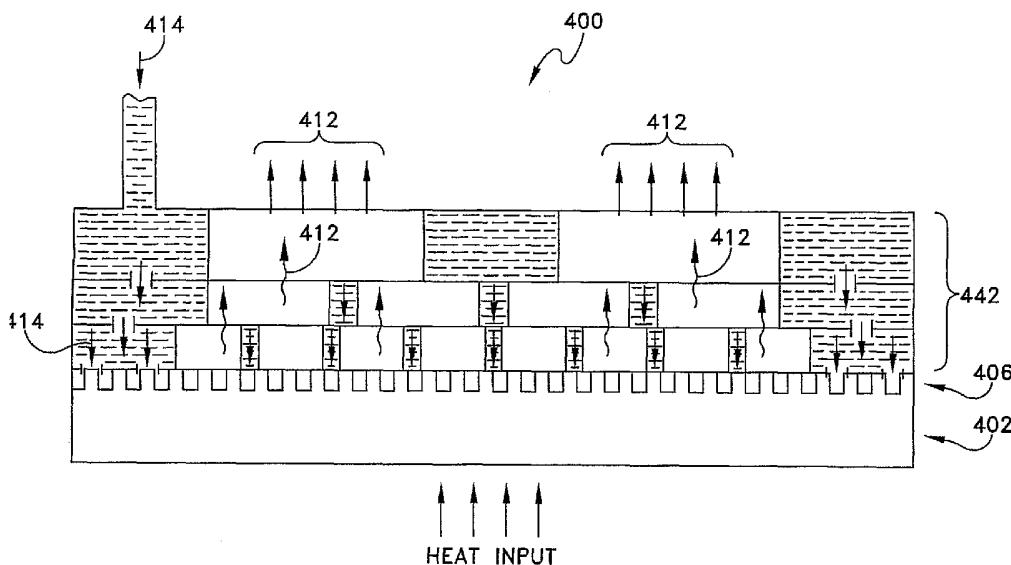
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(54) Title: CAPILLARY CONDENSER/EVAPORATOR



(57) Abstract: A heat transfer device is disclosed for transferring heat to or from a fluid that is undergoing a phase change. The heat transfer device includes a liquid- vapor manifold in fluid communication with a capillary structure thermally connected to a heat transfer interface, all of which are disposed in a housing to contain the vapor. The liquid- vapor manifold transports liquid in a first direction and conducts vapor in a second, opposite direction. The manifold provides a distributed supply of fluid (vapor or liquid) over the surface of the capillary structure. In one embodiment, the manifold has a fractal structure including one or more layers, each layer having one or more conduits for transporting liquid and one or more openings for conducting vapor. Adjacent layers have an increasing number of openings with decreasing area, and an increasing number of conduits with decreasing cross-sectional area, moving in a direction toward the capillary structure.

WO 2006/107492 A3



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F28D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
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Information on patent family members

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