

Title (en)
HEAT EXCHANGE STRUCTURE, METHOD FOR PRODUCING SAME, HEAT EXCHANGE DEVICE COMPRISING SUCH A STRUCTURE AND USES OF SAME

Title (de)
WÄRMETAUSCHERSTRUKTUR, VERFAHREN ZUR HERSTELLUNG DAVON, WÄRMETAUSCHVORRICHTUNG MIT SOLCH EINER STRUKTUR UND VERWENDUNGEN DAVON

Title (fr)
STRUCTURE D'ECHANGE THERMIQUE, SON PROCEDE DE FABRICATION, DISPOSITIF D'ECHANGE THERMIQUE COMPRENANT UNE TELLE STRUCTURE ET LEURS UTILISATIONS

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Abstract (en)
[origin: WO2014198930A1] The present invention relates to a heat exchange structure implementing heat transfer by boiling a liquid and comprising a substrate and at least one layer intended to be in contact with a liquid and disposed at least partially on the substrate. The composition of this layer comprises at least one molecular switch having a lower critical solution temperature TLCST above which it gives the layer non-wetting properties with regard to the liquid and below which it gives the layer wetting properties with regard to the liquid, said lower critical solution temperature TLCST of the molecular switch being chosen so as to be greater than or equal to the saturation temperature T_{sat} of the liquid. The present invention also relates to an assembly and to a heat exchange device comprising such a structure, to the uses of same and to the methods for producing such a structure and assembly.

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