

Title (en)
Devices and method for enhanced heat transfer

Title (de)
Vorrichtungen und Verfahren für verbesserte Wärmeübertragung

Title (fr)
Dispositifs et procédé de transfert de chaleur amélioré

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Abstract (en)
The present invention relates to devices and method for enhanced heat transfer, in particular to a heat exchanger comprising at least one hydrophilic heat exchanging surface to be thermally contacted with a cooling fluid, wherein said hydrophilic surface has a surface roughness inferior to 1 μm and wherein said hydrophilic surface comprises: at least one discrete area whereon are covalently grafted hydrophobic molecules for controlling onset boiling, or at least one discrete area whereon is coated a hydrophobic polymer for controlling onset boiling. The present invention also relates to a process for constructing a heat exchanger according to the invention.

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