

Title (en)
VAPOUR CHAMBER

Title (de)
VAPOR CHAMBER

Title (fr)
CHAMBRE À VAPEUR

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Application
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Abstract (en)
[origin: WO2013075839A2] The present invention relates to a vapour chamber (1), comprising a lower shell (3) and an upper shell (4), wherein at least one gas-tight and liquid-tight intermediate area (11) is formed between lower shell (3) and upper shell (4), in which area a fluid working medium is accommodated and a porous material (12, 13, 30) that interacts with the fluid is arranged; the porous material (12, 13) is in contact, at least in some areas, with the upper shell (4) and/or the lower shell (3), but does not completely fill the at least one intermediate area (11), forming at least one cavity-like vapour gap (14). The upper shell (4) of the vapour chamber (1) has on its top side a plurality of indentations (6) which are distributed over the surface (5) thereof, extend towards the lower shell (3) and act as sample receptacles, into which samples to be temperature-controlled (7) can be introduced from the top using the vapour chamber (1). At least one vapour gap (14) delimited at least partially by the porous material (12, 13) extends three-dimensionally in such a manner that it surrounds at least partially laterally and within the intermediate area (11) located between the upper and lower shell (4, 3), one or more indentations (6) of the upper shell (4). Some of the indentations (6) formed on the upper shell (4) and extending towards the lower shell (3), preferably all indentations (6), are in contact with the bottom of the lower shell (3). At least a part of the indentations (6) in contact with the lower shell (3) are connected on their underside to the lower shell (3), wherein each indentation (6) of the upper shell (4) is in contact on the intermediate space side with the porous material (13, 30), and wherein the porous material (13, 30) adjacent to the indentations (6) on the intermediate space side is in contact with the porous material (12, 30) adjacent to the lower shell (3) in the region of the indentations (6) concerned.

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