

Title (en)
Evaporation device with a capillary pump

Title (de)
Verdampfungsvorrichtung mit einer kapillaren Pumpe

Title (fr)
Dispositif d'évaporation comprenant une pompe capillaire

Publication
EP 2457629 A1 20120530 (FR)

Application
EP 11188935 A 20111114

Priority
FR 1004598 A 20101126

Abstract (en)
The device (100) has a reservoir (101) containing liquid to be vaporized (111). A heating element (105) i.e. electrically conductive grid, heats the liquid to vaporize the liquid. An annular capillary barrier (106) is arranged in a capillary pumping direction (102) of liquid, downstream from a cylindrical capillary pump (110). The barrier prevents discharge of unvaporized liquid from the device, and has a non-wetting porous component (116) provided with a polymer membrane. The reservoir, the pump and the barrier are arranged in an outer support made of glass, ceramics and/or plastic material. The non-wetting porous component is made of thermally insulating material. The heating element is made of stainless material.

Abstract (fr)
La présente invention concerne un dispositif (100) pour la vaporisation d'un liquide, ledit dispositif (100) comportant: un réservoir (101) susceptible de contenir un liquide à vaporiser (111), un élément chauffant (105) susceptible de chauffer du liquide afin de le vaporiser, une pompe capillaire (110) susceptible de pomper du liquide contenu dans ledit réservoir (101) vers ledit élément chauffant (105) par pompage capillaire, et une barrière capillaire (106) disposée dans une direction (102) de pompage capillaire du liquide à vaporiser (111) en aval de la pompe capillaire (110), ladite barrière capillaire (106) étant susceptible d'empêcher du liquide non vaporisé de s'échapper du dispositif (100).

IPC 8 full level
B01B 1/00 (2006.01)

CPC (source: EP US)
B01B 1/005 (2013.01 - EP US)

Citation (applicant)
• WO 2005049185 A1 20050602 - VAPORE INC [US], et al
• WO 2007012447 A1 20070201 - COMMISSARIAT ENERGIE ATOMIQUE [FR], et al

Citation (search report)
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• [A] DE 102007006217 A1 20080821 - DRAEGER MEDICAL AG [DE]

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FR3011489A1

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