

Title (en)
MICROSTRUCTURED DEVICE AND METHOD FOR BUBBLE-FREE FILLING OF A DEVICE FOR GUIDING LIQUIDS

Title (de)
MIKROSTRUKTURIERTE ANORDNUNG ZUR BLASENFREIEN BEFÜLLUNG ZUMINDEST EINES SYSTEMS ZUR ABLEITUNG VON FLÜSSIGKEITEN, VORRICHTUNG MIT EINER SOLCHEN ANORDNUNG UND BEFÜLLUNGSVERFAHREN

Title (fr)
DISPOSITIF MICRO-STRUCTURE ET PROCÉDÉ POUR LE REMPLISSAGE EXEMPT DE BULLES D'UN DISPOSITIF SERVANT À GUIDER DES LIQUIDES

Publication
EP 1559676 B1 20160629 (DE)

Application
EP 04029633 A 20041215

Priority
DE 10360220 A 20031220

Abstract (en)
[origin: EP1559676A2] The fine structure arrangement includes inlet port (2) and discharge port (4) between which a transitional zone (3) for conveying fluid, is formed. A region (6) at which the capillary force is maximum, is formed at the transitional zone, such that the fluid meniscus is produced, which moves based on capillary force, in the transitional zone. Independent claims are also included for the following: (1) fine structure apparatus; and (2) fluid ejection method.

IPC 8 full level
B01J 4/00 (2006.01); **B01L 3/00** (2006.01); **B81B 1/00** (2006.01)

CPC (source: EP US)
B01L 3/502723 (2013.01 - EP US); **B01L 3/502746** (2013.01 - EP US); **B01L 2200/0621** (2013.01 - EP US); **B01L 2200/0684** (2013.01 - EP US); **B01L 2300/0864** (2013.01 - EP US); **B01L 2400/0688** (2013.01 - EP US); **Y10T 436/11** (2015.01 - EP US); **Y10T 436/110833** (2015.01 - EP US); **Y10T 436/111666** (2015.01 - EP US)

Cited by
EP2486978A1; EP1977829A1; WO2009106331A3; WO2012055707A1; US9539572B2; US10363559B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1559676 A2 20050803; EP 1559676 A3 20081203; EP 1559676 B1 20160629; CN 101632947 A 20100127; CN 101632947 B 20120808; CN 1695808 A 20051116; DE 10360220 A1 20050721; JP 2005177754 A 20050707; JP 4931345 B2 20120516; US 2005169778 A1 20050804; US 7485118 B2 20090203

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EP 04029633 A 20041215; CN 200410094216 A 20041220; CN 200910160325 A 20041220; DE 10360220 A 20031220; JP 2004368438 A 20041220; US 1533304 A 20041220