

Title (en)  
Drop-activated micro-pump

Title (de)  
Mikropumpe mit Betätigung durch Tropfen

Title (fr)  
Micropompe à actionnement par gouttes

Publication  
**EP 2182212 B1 20120229 (FR)**

Application  
**EP 09173788 A 20091022**

Priority  
FR 0857310 A 20081028

Abstract (en)  
[origin: EP2182212A1] The micropump has a displacement unit displacing a drop (51) of liquid (L1) by electrowetting on a hydrophobic surface till the drop is contacted with a hydrophilic wall (12) of a microchannel (10) such that the drop is introduced by wetting in the microchannel through an inlet orifice (11) to cause displacement of fluid (F1). The displacement unit has displacement electrodes (31) and a counter-electrode provided in electrical contact with the drop. The drop forms a contact angle on the hydrophilic wall, where the angle is less than an angle formed by electrowetting on the surface.

IPC 8 full level  
**F04B 19/00** (2006.01); **B01F 13/00** (2006.01); **F04B 43/04** (2006.01)

CPC (source: EP US)  
**F04B 19/006** (2013.01 - EP US); **F04B 43/043** (2013.01 - EP US)

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)  
**EP 2182212 A1 20100505; EP 2182212 B1 20120229**; AT E547627 T1 20120315; FR 2937690 A1 20100430; FR 2937690 B1 20101231; US 2010104459 A1 20100429

DOCDB simple family (application)  
**EP 09173788 A 20091022**; AT 09173788 T 20091022; FR 0857310 A 20081028; US 58206309 A 20091020