

Title (en)
Use of a device for analysing a liquid sample

Title (de)
Verwendung einer Vorrichtung zur Untersuchung von Probenflüssigkeit

Title (fr)
Utilisation d'un dispositif pour l'analyse d'un échantillon de liquide

Publication
EP 1685900 A1 20060802 (DE)

Application
EP 06001069 A 20060119

Priority
DE 102005003961 A 20050127

Abstract (en)
A device for testing sample liquids (2) with a reaction zone (9) with a reagent (R) on the flat side, a test zone (10) and a device for holding (2) in zone (9) for the dissolution and/or reaction of (R), in which there is a means of producing a straight flow front in (2), and at least 90% of (R) reacts with (2) and is transferrable with it to zone (10), or the concentration of (R) or reaction product in (10) varies by not more than 10%. A device (1) for testing sample liquids (2), with: (a) a channel (3) for taking up and transporting the liquid (2) by means of capillary forces, which has a flat side (4) over which the liquid (2) passes with lateral and/or laminar flow; (b) a reaction zone (9) with a soluble and/or reactive reagent (R) on the flat side (4), which can be completely filled with (2) to define a reaction volume (V) of liquid (2); (c) a test zone (10) formed by the channel (3) and following zone (9); and (d) a device (12) for keeping (2) in the reaction zone (9) temporarily for the dissolution and/or reaction of (R). The device (1) also has a means (16) of producing a minimally curved or straight flow front (F) in the liquid (2); the reagent (R) is soluble in and/or reacts with the defined volume (V) of (2) to the extent of at least 90%, and at least 90% of the dissolved (R) or a reaction product of (R) is transferrable to zone (10) together with (V), or the concentration of dissolved (R) or reaction product within (V) in zone (10) varies by not more than 10%. An independent claim is also included for a method for testing sample liquids (2) with the above device, in which the liquid (2) flows from zone (9) into zone (10) with an at least substantially straight flow front (F) and/or at least without any substantial change in flow cross-section.

IPC 8 full level
B01L 3/00 (2006.01)

CPC (source: EP US)
B01L 3/50273 (2013.01 - EP US); **B01L 3/502738** (2013.01 - EP US); **B01L 2200/0605** (2013.01 - EP US); **B01L 2200/0684** (2013.01 - EP US); **B01L 2200/16** (2013.01 - EP US); **B01L 2300/0825** (2013.01 - EP US); **B01L 2300/165** (2013.01 - EP US); **B01L 2400/0406** (2013.01 - EP US); **B01L 2400/0688** (2013.01 - EP US); **B01L 2400/086** (2013.01 - EP US)

Citation (applicant)
• EP 1201304 A2 20020502 - MICROPARTS GMBH [DE]
• EP 1440732 A1 20040728 - STEAG MICROPARTS GMBH [DE]
• EP 1441131 A1 20040728 - STEAG MICROPARTS GMBH [DE]
• EP 1419818 A1 20040519 - STEAG MICROPARTS GMBH [DE]
• US 5458852 A 19951017 - BUECHLER KENNETH F [US]

Citation (search report)
• [XY] US 2004077103 A1 20040422 - BUECHLER KENNETH F [US]
• [Y] US 2004096358 A1 20040520 - BLANKENSTEIN GERT [DE], et al & EP 1419818 A1 20040519 - STEAG MICROPARTS GMBH [DE]
• [DY] EP 1201304 A2 20020502 - MICROPARTS GMBH [DE]
• [Y] DE 10302720 A1 20040805 - STEAG MICROPARTS GMBH [DE]

Cited by
EP2226622A4; WO2013004673A1; US9409171B2; US8241589B2; WO2009106331A3; 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 LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1685900 A1 20060802; **EP 1685900 B1 20110330**; AT E503578 T1 20110415; CN 1811416 A 20060802; DE 502006009183 D1 20110512; ES 2361169 T3 20110614; JP 2006208388 A 20060810; US 2006216195 A1 20060928

DOCDB simple family (application)
EP 06001069 A 20060119; AT 06001069 T 20060119; CN 200610004731 A 20060127; DE 502006009183 T 20060119; ES 06001069 T 20060119; JP 2006019062 A 20060127; US 34083706 A 20060127