

Title (en)
Pipette tip with hydrophobic surface structure

Title (de)
Pipettierspitze mit hydrophober Oberflächenausbildung

Title (fr)
Seringue pour pipette à revêtement hydrophobe

Publication
EP 2428272 A3 20150429 (DE)

Application
EP 11173625 A 20110712

Priority
DE 102010031240 A 20100712

Abstract (en)
[origin: US2012009100A1] The present invention relates to a pipette tip (10), for aspirating and dispensing pipetting fluid, which extends along a pipette tip longitudinal axis (L), a first axial longitudinal end region (16) of the pipette tip (10), as a pipetting longitudinal end region (16), comprising a pipette opening (12), through which pipetting fluid can flow in the course of operation, and a second axial longitudinal end region (18) of the pipette tip (10), as a coupling longitudinal end region (18), which opposes the pipetting longitudinal end region (16) in the axial direction, comprising a coupling shape, for coupling, preferably releasable coupling, to a coupling counter-shape of a pipette device, the pipette tip (10) comprising an outer hydrophobic region (32) on the outside (30) thereof and an inner hydrophobic region (26) on the inside (28) thereof, each having a quadratic roughness in a range of 100 nm to 1000 nm, preferably of 150 nm to 750 nm and particularly preferably of 200 nm to 500 nm, and having a peak-to-peak roughness in a range of 800 nm to 5500 nm, preferably of 1750 nm to 4500 nm and particularly preferably of 2500 nm to 3700 nm, the axial extension range of the outer hydrophobic region (32) and the axial extension range of the inner hydrophobic region (26) differing from one another.

IPC 8 full level
B01L 3/02 (2006.01); **B05C 1/00** (2006.01); **B05D 1/00** (2006.01); **G01N 35/10** (2006.01)

CPC (source: EP US)
B01L 3/021 (2013.01 - US); **B01L 3/0275** (2013.01 - EP US); **B01L 2200/12** (2013.01 - EP US); **B01L 2300/165** (2013.01 - EP US); **B01L 2300/166** (2013.01 - EP US); **B05C 17/00503** (2013.01 - EP US)

Citation (search report)

- [AD] US 2009220386 A1 20090903 - FERRI JOSEPH E [US], et al
- [YA] WO 2006138743 A2 20061228 - BIOPROCESSORS CORP [US], et al
- [Y] US 2009202392 A1 20090813 - URANO HIKARU [JP], et al
- [YDA] WO 03013731 A1 20030220 - CREA VIS TECH & INNOVATION GMBH [DE], et al
- [Y] US 2009088336 A1 20090402 - BURD TAMMY [US], et al
- [A] US 2005208676 A1 20050922 - KAHATT ESPIR [US]
- [A] EP 1795264 A1 20070613 - AGILENT TECHNOLOGIES INC [US]
- [A] EP 0339662 A2 19891102 - CHRYSLER MOTORS [US]
- [A] WO 03076075 A1 20030918 - CREA VIS TECH & INNOVATION GMBH [DE], et al
- [A] US 2005255240 A1 20051117 - OKAMOTO TAKAFUMI [JP], et al
- [A] US 2067922 A 19370119 - HOTHERSALL JOHN M

Designated contracting state (EPC)
AL 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 RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
US 2012009100 A1 20120112; **US 8753715 B2 20140617**; DE 102010031240 A1 20120112; EP 2428272 A2 20120314; EP 2428272 A3 20150429; EP 2428272 B1 20170823; JP 2012073227 A 20120412; JP 2016047531 A 20160407; JP 6140245 B2 20170531; NO 2428272 T3 20180120; US 2013280423 A1 20131024; US 8840957 B2 20140923

DOCDB simple family (application)
US 201113180874 A 20110712; DE 102010031240 A 20100712; EP 11173625 A 20110712; JP 2011153732 A 20110712; JP 2015213964 A 20151030; NO 11173625 A 20110712; US 201313921668 A 20130619