

Title (en)

Rotatable test element

Title (de)

Rotierbares Testelement

Title (fr)

Élément d'essai rotatif

Publication

EP 1916524 A1 20080430 (DE)

Application

EP 06020219 A 20060927

Priority

EP 06020219 A 20060927

Abstract (en)

A disk-shaped, flat test element (1), rotatable about a (preferably central) axis perpendicular to the plane of the element, has a liquid sample introduction opening (4); a capillary-active region (12) (preferably a porous absorbent matrix) having a first end near and a second end spaced from the axis; and a sample channel (9) extending from near the axis to the first end of the capillary-active region. Independent claims are included for: (1) a variant of the test element, having a sample receiving opening with a sample dosing zone (5) contacting an excess sample zone (7), where a capillary stopper (6) is provided between the sample dosing and excess sample zones; (2) a method for determining an analyte in a liquid sample using the element, involving: applying the sample to the receiving opening; rotating the element, so that the sample is transported to the first end of the capillary-active zone; slowing or stopping the rotation, so that the sample (or a material recovered from the sample on passage through the element) is sucked from the first end to the second end of the capillary-active zone; and visually or optically determining the analyte in the capillary-active zone or an adjacent zone; and (3) a system for determining an analyte in a liquid sample, comprising a test element as above and a measuring device including a drive for rotating the element and an optical system for evaluating the visual or optical signal from the element.

Abstract (de)

Die Erfindung betrifft ein Testelement (1), das im Wesentlichen scheibenförmig und eben ist und um eine zentrale Achse, die senkrecht zur scheibenförmigen Testelementebene liegt, rotierbar ist, enthaltend eine Probenaufgabeöffnung (4) zur Aufgabe einer flüssigen Probe, eine poröse, saugfähige Matrix (12), mit einem achsenfernen ersten Ende und einem achsennahen zweiten Ende, und einen Probenkanal (9), der von einem achsennahen Bereich zum achsenfernen ersten Ende der porösen, saugfähigen Matrix reicht. Weiterhin betrifft die Erfindung ein Verfahren zur Bestimmung eines Analyten mit Hilfe des Testelements (1).

IPC 8 full level

B01L 3/00 (2006.01); **G01N 33/543** (2006.01)

CPC (source: EP US)

B01L 3/5023 (2013.01 - EP US); **B01L 3/50273** (2013.01 - EP US); **B01L 3/502738** (2013.01 - EP US); **B01L 3/502753** (2013.01 - EP US);
B01L 2200/0605 (2013.01 - EP US); **B01L 2300/0663** (2013.01 - EP US); **B01L 2300/0681** (2013.01 - EP US); **B01L 2300/069** (2013.01 - EP US);
B01L 2300/0806 (2013.01 - EP US); **B01L 2300/0861** (2013.01 - EP US); **B01L 2400/0406** (2013.01 - EP US); **B01L 2400/0409** (2013.01 - EP US);
B01L 2400/0688 (2013.01 - EP US); **B01L 2400/082** (2013.01 - EP US); **Y10T 436/110833** (2015.01 - EP US);
Y10T 436/111666 (2015.01 - EP US)

Citation (search report)

- [X] US 2004265171 A1 20041230 - PUGIA MICHAEL J [US], et al
- [A] WO 9958245 A1 19991118 - AMERSHAM PHARM BIOTECH AB [SE], et al
- [DA] WO 2005009581 A2 20050203 - NAGAOKA KK [JP], et al
- [A] US 5242606 A 19930907 - BRAYNIN BORIS [US], et al

Cited by

EP2145682A1; CN102239410A; GB2473425A; EP2777499A1; EP3474019A4; EP2198964A1; US11484883B2; WO201006668A1;
WO2011027147A1; US9678069B2; US10041942B2; DE102010013752A1; WO2011120819A1

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

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

EP 1916524 A1 20080430; CA 2664565 A1 20080403; CA 2664565 C 20140401; CN 101517413 A 20090826; CN 101517413 B 20131106;
EP 2069787 A1 20090617; EP 2069787 B1 20190306; EP 3524982 A1 20190814; EP 3524982 B1 20221019; ES 2724734 T3 20190913;
ES 2933349 T3 20230206; HK 1136626 A1 20100702; JP 2010505096 A 20100218; JP 5502482 B2 20140528; US 2009191643 A1 20090730;
US 8470588 B2 20130625; WO 2008037469 A1 20080403

DOCDB simple family (application)

EP 06020219 A 20060927; CA 2664565 A 20070927; CN 200780035722 A 20070927; EP 07818502 A 20070927; EP 19160587 A 20070927;
EP 2007008419 W 20070927; ES 07818502 T 20070927; ES 19160587 T 20070927; HK 10101882 A 20100223; JP 2009529607 A 20070927;
US 40741909 A 20090319