(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 450 159 A3

(12) EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
07.06.2006 Bulletin 2006/23

(43) Date of publication A2:
25.08.2004 Bulletin 2004/35

(21) Application number: **04250998.4**

(22) Date of filing: **24.02.2004**

(51) Int Cl.:
G01N 33/49 *(2006.01)* ***B01L 3/14*** *(2006.01)*

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR
Designated Extension States:
AL LT LV MK

(30) Priority: **24.02.2003 US 372745**

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(54) Method and apparatus for the detection of agglutination of assays

(57) An apparatus for conducting an assay having an agglutination or size separation step, includes: a first section disposed to receive a fluid to be assayed; and a second section disposed to receive the fluid from the first section upon application of a motive force, preferably centrifugal force, to the fluid, the second section comprising elements fixed to a substrate and adapted to mix the fluid and trap agglutinated particles. In a preferred embodiment, the elements are shaped as pillars. In another preferred embodiment, a third section is provided after the second section and the apparatus is in the form of a disk, preferably an optical disk, having a central axis, and wherein the first, second and third section are arranged in the disk as channels in a direction away from the central axis, respectively. A method for assaying a fluid that has particles to be separated or agglutinated includes: providing a fluid to be assayed into a first section of an apparatus as described above; applying a motive force to the fluid to move the fluid from the first section into a second section, wherein said second section comprises elements fixed to a substrate and adapted to mix the fluid and trap particles in the fluid; and measuring a property of the fluid. In a preferred embodiment, the fluid to be assayed is blood.

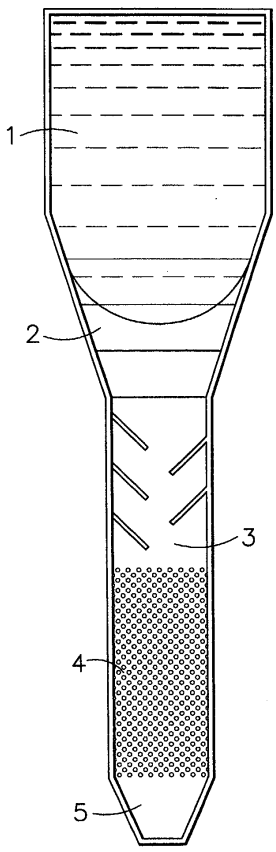

FIG. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 04 25 0998

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X	HE B ET AL: "FABRICATION OF NANOCOLUMNS FOR LIQUID CHROMATOGRAPHY" ANALYTICAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY. COLUMBUS, US, vol. 70, no. 18, 15 September 1998 (1998-09-15), pages 3790-3797, XP001152420 ISSN: 0003-2700 * abstract *	1,4,7,22	TECHNICAL FIELDS SEARCHED (IPC) G01N B01L
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	18 April 2006	Komenda, P

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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A : technological background
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T : theory or principle underlying the invention
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L : document cited for other reasons

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 04 25 0998

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18-04-2006

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	用于检测测定的凝集的方法和装置		
公开(公告)号	EP1450159A3	公开(公告)日	2006-06-07
申请号	EP2004250998	申请日	2004-02-24
[标]申请(专利权)人(译)	奥索临床诊断有限公司		
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IPC分类号	G01N33/49 B01L3/14 G01N33/543 B01L3/00 G01N21/82 G01N33/487 G01N33/53 G01N33/537		
CPC分类号	B01L3/5021 B01L3/502746 B01L2300/0806 B01L2400/0409 B01L2400/086 G01N33/491		
代理机构(译)	MERCER，CHRISTOPHER PAUL		
优先权	10/372745 2003-02-24 US		
其他公开文献	EP1450159A2		
外部链接	Espacenet		

摘要(译)

一种用于进行具有凝集或尺寸分离步骤的测定的装置，包括：第一部分，设置成接收待测定的流体;第二部分设置成在向流体施加动力（优选离心力）时从第一部分接收流体，第二部分包括固定到基底并适于混合流体和捕获凝集颗粒的元件。在优选实施例中，元件成形为支柱。在另一个优选实施例中，在第二部分之后提供第三部分，并且该设备是盘的形式，优选地是具有中心轴的光盘，并且其中第一，第二和第三部分布置在盘中作为在远离中心轴的方向上分别通道。用于测定具有待分离或凝集的颗粒的流体的方法包括：将待测定的流体提供到如上所述的装置的第一部分中;向流体施加动力以将流体从第一部分移动到第二部分，其中所述第二部分包括固定到基底并适于将流体和捕获颗粒混合在流体中的元件;并测量流体的性质。在优选的实施方案中，待测定的流体是血液。

FIG. 1