(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 22 December 2005 (22.12.2005)

(10) International Publication Number WO 2005/120199 A3

(51) International Patent Classification:

 A61B 5/00 (2006.01)
 A61B 17/14 (2006.01)

 A61B 17/32 (2006.01)
 B65D 81/00 (2006.01)

(21) International Application Number:

PCT/US2005/019590

(22) International Filing Date: 3 June 2005 (03.06.2005)

(25) Filing Language: English

(26) Publication Language: English

(**30**) **Priority Data:** 60/576,998

3 June 2004 (03.06.2004) US

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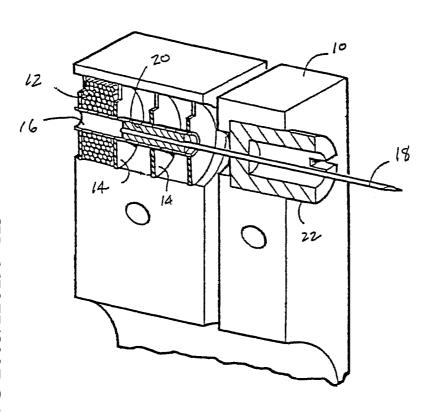
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: METHODS AND APPARATUS FOR AN INTEGRATED SAMPLE CAPTURE AND ANALYSIS DISPOSABLE



(57) Abstract: Methods apparatus are provided for an analyte detecting device. In one embodiment, the device comprises a cartridge having a plurality of cavities; and a plurality of penetrating members at least partially contained in the cavities of the single cartridge wherein the penetrating members are slidably movable to extend outward from lateral openings on the cartridge to penetrate tissue. The device may also include a sterility barrier coupled to the cartridge, the sterility barrier covering a plurality of the lateral openings, wherein the sterility barrier covering the lateral openings is configured to be moved so that a penetrating member exits the lateral without contacting opening barrier; a plurality of analyte detecting members coupled to an underside of the cartridge; and a plurality of sample capture devices, the sample capture devices each having a vertical portion and a horizontal portion, the vertical portion having a opening therethrough to allow a penetrating member to pass

through

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European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report: 17 August 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/19590

A. CLASSIFICATION OF SUBJECT MATTER IPC: A61B 5/00(2006.01),17/32(2006.01),17/14(2006.01);B65D 81/00(2006.01)				
USPC: 600/573,575,583,584;606/167,181,182,183 According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols) U.S.: 600/573,575,583,584;606/167,181,182,183				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)				
C. DOC	UMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.	
X	US 6,706,159 B2 (MOERMAN et al) 16 March 2004	4 (16.03.2004), columns 7-9, lines 13-34.	1, 3, 4, 5, 7-10	
<u></u>			2, 6, 11-19	
X,P US 2005/0021066 A1 (KUHR et al) 27 January 2005 (27.		5 (27 01 2005) whole document	1	
	65 2005/0021000 AT (ROTHE of all) 27 January 2005	(27.01.2003), whole document		
Y			2, 11, 12, 13, 15-19	
Y, P US 6,783,502 B2 (ORLOFF et al) 31 August 2004 (3		31.08.2004), column 7, lines 54-57.	14	
Y	Y US 6,251,083 B1 (YUM et al) 26 June 2001 (26.06.2001) column 7, lines 20-25			
Further documents are listed in the continuation of Box C. See patent family annex.				
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"A" document defining the general state of the art which is not considered to be of particular relevance		date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be		
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	published prior to the international filing date but later than the te claimed	"&" document member of the same patent family		
Date of the ac	tual completion of the international search	Date of mailing of the international search	report	
	(10.04.2006)	29 JUN 2006		
Name and mailing address of the ISA/US Authorized officer			1/	
Mail Stop PCT, Attn: ISA/US Commissioner for Patents		Max Hindenburg		
P.O. Box 1450		Telephone No. (571) 234-5746		
	andria, Virginia 22313-1450 (571) 273-3201	10. (5/1) 234-3/40	-	

INTERNATIONAL SEARCH REPORT

International application No. PCT/US05/19590

Continuation of Item 4 of the first sheet: Examiner METHOD AND APPARATUS FOR INTEGRATED SAMPLE CAPTURE AND ANALYSIS				
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