(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 6 November 2008 (06.11.2008)

(10) International Publication Number WO 2008/131920 A3

(51) International Patent Classification: A61B 5/155 (2006.01) A61B 5/00 (2006.01)

(21) International Application Number:

PCT/EP2008/003355

25 April 2008 (25.04.2008) (22) International Filing Date:

(25) Filing Language: English

(26) Publication Language: **English**

(30) Priority Data: 60/914,897 30 April 2007 (30.04.2007) US

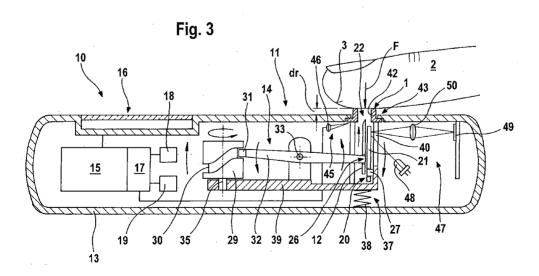
- (71) Applicant (for DE only): ROCHE DIAGNOSTICS GMBH [DE/DE]; Sandhofer Str. 116, 68305 Mannheim
- (71) Applicant (for all designated States except DE, US): F. HOFFMANN-LA ROCHE AG [CH/CH]; Grenzacherstrasse 124, CH-4070 Basel (CH).
- (71) Applicant (for US only): ZIMMER, Volker [DE/DE]; Burgstr. 17, 67229 Laumersheim (DE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KRAEMER, Uwe [DE/DE]; Neue Schulstrasse 21, 68549 Ilvesheim (DE). ROEDEL, Wolfgang [DE/DE]; Johanniterstrasse 9,

69123 Heidelberg (DE). LIST, Hans [DE/DE]; Siegfriedstrasse 27, 64754 Hesseneck-Kailbach (DE). FREY, Stephan-Michael [DE/DE]; Heinrich-Heine-Str. 8, 64347 Griesheim (DE). HOERAUF, Christian [DE/DE]; In den Auwiesen 53, 68723 Oftersheim (DE). PATEL, Paul [US/US]; 1010 East Evelyn Avenue, Sunnyvale, CA 94086 (US).

- (74) Agent: PFEIFER, Hans-Peter; Durm & Partner, Beiertheimer Allee 19, 76137 Karlsruhe (DE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH. PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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: INSTRUMENT AND SYSTEM FOR PRODUCING A SAMPLE OF A BODY LIQUID AND FOR ANALYSIS THEREOF



(57) Abstract: Instrument for producing a sample of body liquid for analysis by piercing the skin with a lancing element (12) having a skin piercing tip. The instrument (11) has a housing (13) and a lancing drive (14) for driving a lancing element (12) connected thereto in a puncturing movement. A pressure ring (1) surrounds a skin contact opening (4) and is adapted for pressing against the skin such that the skin (3) bulges into the opening (4) for promoting expression of body fluid. The skin contact opening (4) has an opening area corresponding to a circle with a diameter of at least 3 mm and at most 8 mm, and the instrument comprises a pressing force control device (37) for controlling the pressing force between the pressure ring (1) and the skin (3) at the time of triggering the puncturing movement, to be at least 3 N and at most 8 N.



WO 2008/131920 A3



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

Published:

with international search report

(88) Date of publication of the international search report:

19 March 2009

INTERNATIONAL SEARCH REPORT

International application No PCT/EP2008/003355

			PCT/EP2008/003355
A. CLASSII	FICATION OF SUBJECT MATTER A61B5/155 A61B5/00		
TÍMA.	A0163/193 A0163/00		
	Literations Detait Classification (IDC) or to both notional class	reification and IPC	
	o International Patent Classification (IPC) or to both national classes	Situation and it o	And the second s
Minimum do	ocumentation searched (classification system followed by classification sy	fication symbols)	
A61B			1
	tion searched other than minimum documentation to the extent t	het ouch documents are inc	Sturbed in the fields searched
Documenta	tion searched other than minimum documentation to the extent	, , , , , , , , , , , , , , , , , , ,	in the relief bearings
Electronic	lata base consulted during the international search (name of dat	ta hase and where practical	al. search terms used)
EPO-In		a pass and, more practice	
ELO-111	ternar		
O DOCUM	ENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the	ne relevant passages	Relevant to claim No.
Υ	US 6 589 260 B1 (SCHMELZEISEN-	REDEKER	1-4,14,
•	GUENTHER [DE] ET AL) 8 July 2003 (2003-07-08)	15, 17-21,	
	8 July 2003 (2003-07-08)		23,24,
			26,27
	column 6, lines 1-61 column 7, line 36 - column 8,	line 15	
γ	EP 1 527 737 A (LIFESCAN INC [ับร1)	1-4,
•	4 May 2005 (2005-05-04)		9-15,
			17-21, 23,24,
	·	_	26,27
	paragraphs [0011], [0015] - [[0025]	[0022],	
		-/	
		,	
X Fur	ther documents are listed in the continuation of Box C.	X See patent f	amily annex.
* Special	categories of cited documents :	"T" later document p	ublished after the international filing date
"A" docum	nent defining the general state of the art which is not idered to be of particular relevance		and not in conflict with the application but and the principle or theory underlying the
l.	document but published on or after the international	"X" document of part	licular relevance; the claimed invention idered novel or cannot be considered to
"! docum	uate hent which may throw doubts on priority claim(s) or his clied to establish the publication date of another	involve an inver	ntive step when the document is taken alone
citatio	on or other special reason (as specified) nent referring to an oral disclosure, use, exhibition or	cannot be consi	licular relevance; the claimed invention idered to involve an inventive step when the mbined with one or more other such docu-
other	renans reperring to an oral disclosure, use, exhibition or remeans remained prior to the international filling date but		mbination being obvious to a person skilled
later	than the priority date claimed		per of the same patent family
Date of the	e actual completion of the international search	Date of mailing o	of the international search report
]	19 December 2008	13/01/	/2009
Name and	mailing address of the ISA/	Authorized office	er
	European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040,	Manaak	not lan
	Fax: (+31-70) 340-3016	Manscr	not, Jan

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2008/003355

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1 360 933 A (LIFESCAN INC [US]) 12 November 2003 (2003-11-12) paragraphs [0054], [0060] - [0066], [0087], [0088]	1,23-26
Х	US 2007/016103 A1 (CALASSO IRIO [CH] ET AL) 18 January 2007 (2007-01-18)	5,6
1	paragraphs [0081] - [0084] 	7-14
X Y	US 2003/191415 A1 (MOERMAN PIET [BE] ET AL) 9 October 2003 (2003-10-09) paragraphs [0113] - [0131], [0167],	7,8
	[0168]	`
	-	
		. •
,		

International application No. PCT/EP2008/003355

INTERNATIONAL SEARCH REPORT

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)
This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
see additional sheet
1. X As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4,14-27 (partially)

Lancing device with pressure ring with defined diameter and pressing force

2. claims: 5-27 (partially)

Lancing device with analysis element and interaction time controlling.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2008/003355

Patent document cited in search report		Publication date	Patent family member(s)		Publication date	
US 6589260	6589260 B1 08-07-2003		AU	7634401	A	03-12-2001
		••	ΑU	2001276344		14-10-2004
		•	BR	0111120	A	08-04-2003
			CA	2410299	A1	22-11-2002
			CN	1438853	Α	27-08-2003
			CZ	299524	B6	27-08-2008
			DE	10026172	A1	29-11-2001
			WO	0189383	A2	29-11-2001
			ΕP	1289422	A2	12-03-2003
			HK	1058468	A1	11-05-2007
			JP		B2	15-06-2005
			JP	2003533323	T	11-11-2003
			JP	4180056	B2	12-11-2008
			JΡ	2005103329		21-04-2005
			KR	20050099555		13-10-2005
			MX	PA02011526		25-04-2003
			PL	360109		06-09-2004
			ÜS	2008021494		24-01-2008
						
EP 1527737	Α	04-05-2005	AU	2004224889		19-05-2005
			CA	2486346		30-04-2005
			CN	1611188		04-05-2005
			HK	1073056		20-04-2007
			JP	2005137899		02-06-2005
			KR	20050041943		04-05-2005
•			MΧ	PA04010763		05-07-2005
			SG	111286		30-05-2005
			SG	131940		28-05-2007
			US	2005096686	A1	05-05-2005
EP 1360933	 A	12-11-2003	AT	332667	T	15-08-2006
			CA	2428349	A1	09-11-2003
			CN	1456888	Α	19-11-2003
			DE	60306711	T2	12-07-2007
			ES	2268287	T3	16-03-2007
			HK	1057984	A1	12-01-2007
			JΡ		Α	08-01-2004
			PT	1360933		31-10-2006
			SG	115538	A1	28-10-2005
			TW	283570		11-07-2007
		•	ÜS	2003212344		13-11-2003
US 2007016103	 A1	18-01-2007	AU	2005220027	 А1	15-09-2005
02 500\010103	Δ1	10 01 500)	BR	PI0508515		14-08-2007
			CA	2558121		15-09-2005
			WO	2005084546		15-09-2005
			JP	2003084340		27-09-2007
US 2003191415	 A1	09-10-2003	NON			