

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
10 October 2002 (10.10.2002)

PCT

(10) International Publication Number  
**WO 02/078533 A3**

(51) International Patent Classification<sup>7</sup>: **A61B 5/00**, 5/15

(21) International Application Number: PCT/GB02/01599

(22) International Filing Date: 2 April 2002 (02.04.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/280,321 29 March 2001 (29.03.2001) US

(71) Applicant (for all designated States except US): **INVERNESS MEDICAL LIMITED [GB/GB]**; Beechwood Park North, Inverness IV2 3ED (GB).

(72) Inventors; and

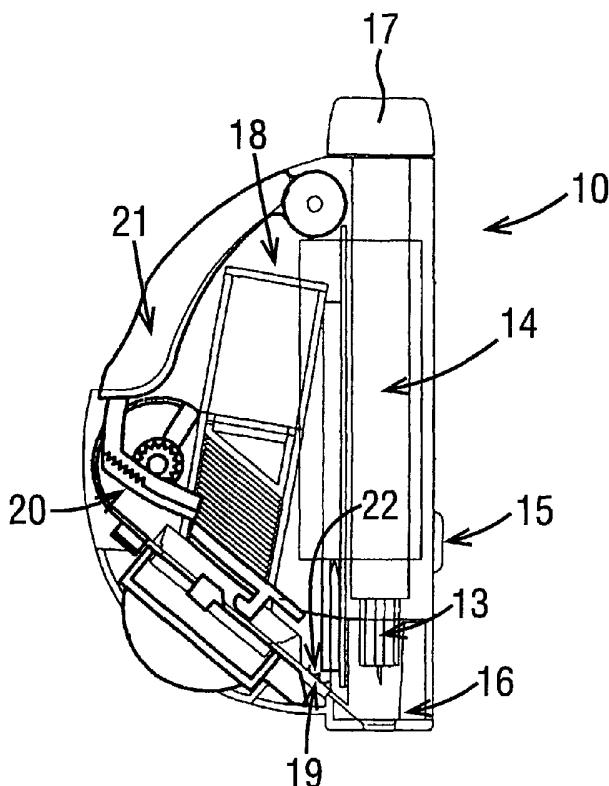
(75) Inventors/Applicants (for US only): **MOERMAN,**

Piet [BE/BE]; Ph. De Denterghemlaan 2, B-9831 St. Martens-Latem (BE). **SHAANAN, Gad** [CA/US]; 6048 Cornerstone Court West, Suite E2, San Diego, California 92121 (US). **MAINVILLE, Patrick** [CA/CA]; 10161 Peloquin, Montreal, Quebec H2C 2J9 (CA). **ORBAN, Benoit** [CA/CA]; 555 Maple, St. Lambert, Quebec J4P 2S6 (CA). **COLEY, Benjamin** [CA/CA]; 1750 Blvd. Rene Leanne, Vimont, Laval, Quebec H7M 5C6 (CA). **FRANCOVICH, Walter** [CA/CA]; 17240 Antoine Faucon, Pierrefonds, Quebec H9J 3S8 (CA). **BODE, Andreas** [DE/DE]; Bessunger Strasse 8, D-64285 Darmstadt (DE). **STIENE, Matthias** [GB/GB]; 66 Crown Drive, Inverness IV2 3QG (GB). **GRIFFITH, Alun** [GB/GB]; 8 Culcabock Road, Inverness IV2 3XQ (GB).

(74) Agents: **MERCER, Christopher, Paul et al.**; Carpmaels & Ransford, 43 Bloomsbury Square, London WC1A 2RA (GB).

[Continued on next page]

(54) Title: INTEGRATED SAMPLE TESTING METER



(57) Abstract: An integrated sample testing meter, for instance for measuring blood, comprising a lancing device, an electrochemical sensor and a test strip cartridge disposed in a single modular housing. The test strip cartridge includes a stack of test strips suitable for performing an electrochemical or photometric analysis of a blood sample. The integrated test system automatically dispenses and positions a test strip in proximity to a lancet puncture site, automatically transfers a blood sample to the test strip from the lancet puncture site and automatically analyzes the blood sample after the test strip collects the sample from the puncture site.

WO 02/078533 A3



**(81) Designated States (national):** AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— *with international search report*

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

22 May 2003

**(84) Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR,

*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/GB 02/01599

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61B5/00 A61B5/15

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)  
IPC 7 A61B

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 practical, search terms used)

EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 198 19 407 A (PRIEBS HENDRIK) 11 November 1999 (1999-11-11) column 2; figures 1,4,5 ----	1,57,63, 65
A	US 6 093 156 A (CHAMBERS GEOFFREY R ET AL) 25 July 2000 (2000-07-25) column 30; figures 3,4,10 ----	1,57,63, 65
A	WO 99 59657 A (NOVONORDISK AS) 25 November 1999 (1999-11-25) page 8, line 18-30; claim 1; figures 4,5 ----	1,57,63, 65
A	EP 0 931 507 A (TERUMO CORP) 28 July 1999 (1999-07-28) claim 1; figure 2 ----	1,57,63, 65
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

## ° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority 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 considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

29 January 2003

Date of mailing of the international search report

06/02/2003

Name and mailing address of the ISA  
European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Bernas, Y

## INTERNATIONAL SEARCH REPORT

Int'l Application No
PCT/GB 02/01599

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 07, 29 September 2000 (2000-09-29) & JP 2000 116626 A (KDK CORP), 25 April 2000 (2000-04-25) abstract -----	1

## INTERNATIONAL SEARCH REPORT

Inventor Application No

PCT/GB 02/01599

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
DE 19819407	A	11-11-1999	DE	19819407 A1	11-11-1999
US 6093156	A	25-07-2000	US	6063039 A	16-05-2000
			US	6306104 B1	23-10-2001
			US	2002169393 A1	14-11-2002
			AU	736675 B2	02-08-2001
			AU	5897498 A	29-06-1998
			CN	1262606 A	09-08-2000
			EP	1120084 A1	01-08-2001
			EP	1112717 A1	04-07-2001
			EP	1112718 A1	04-07-2001
			EP	1120085 A1	01-08-2001
			EP	0946122 A2	06-10-1999
			JP	2001515377 T	18-09-2001
			JP	2001346781 A	18-12-2001
			NO	992730 A	26-07-1999
			WO	9824366 A2	11-06-1998
			US	6283926 B1	04-09-2001
			US	2001031931 A1	18-10-2001
			US	6206841 B1	27-03-2001
			US	6071251 A	06-06-2000
			US	6071249 A	06-06-2000
			US	6027459 A	22-02-2000
WO 9959657	A	25-11-1999	AU	748281 B2	30-05-2002
			AU	3810499 A	06-12-1999
			BR	9911051 A	06-02-2001
			CN	1301184 T	27-06-2001
			WO	9959657 A1	25-11-1999
			EP	1079876 A1	07-03-2001
			HU	0102074 A2	28-10-2001
			JP	2002515302 T	28-05-2002
			NO	20005815 A	16-01-2001
			PL	344305 A1	22-10-2001
			TW	477685 B	01-03-2002
			US	6302855 B1	16-10-2001
			US	2002013522 A1	31-01-2002
EP 0931507	A	28-07-1999	JP	11206742 A	03-08-1999
			JP	2000014662 A	18-01-2000
			JP	2000116768 A	25-04-2000
			EP	0931507 A1	28-07-1999
			SG	89273 A1	18-06-2002
			US	6261245 B1	17-07-2001
JP 2000116626	A	25-04-2000		NONE	