

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
27 April 2006 (27.04.2006)

PCT

(10) International Publication Number
WO 2006/042555 A3

- (51) International Patent Classification:
G01N 33/50 (2006.01) G01N 15/12 (2006.01)
- (21) International Application Number:
PCT/DK2005/000681
- (22) International Filing Date: 20 October 2005 (20.10.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
PA 2004 01609 20 October 2004 (20.10.2004) DK
- (71) Applicant (for all designated States except US):
CHEMPAQ A/S [DK/DK]; Hirsemarken 1B, DK-3520
Farum (DK).

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, LY, 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), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, 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).

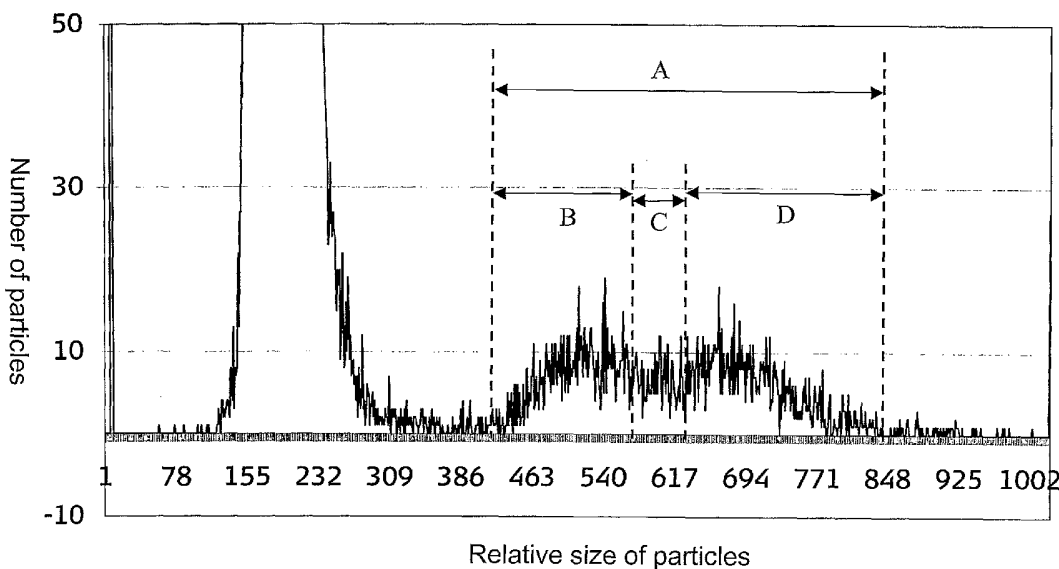
Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
1 June 2006

- (72) Inventor; and
- (75) Inventor/Applicant (for US only): EKBERG, Björn [SE/SE]; Nordmannagatan 16, SE-21774 Malmö (SE).
- (74) Agent: ALBIHNS A/S; H.C. Andersens Boulevard 49, DK-1553 Copenhagen V (DK).
- (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,

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.

(54) Title: LYSING REAGENT FOR SIMULTANEOUS ENUMERATION OF DIFFERENT TYPES OF BLOOD CELLS IN A BLOOD SAMPLE



(57) Abstract: A combined diluent and lysing reagent for simultaneously counting or analysis of various blood cells such as thrombocytes, leukocytes and leukocyte subpopulations, as well as analysis of hemoglobin. The reagent comprises a hemoglobin stabilizing/methemoglobin ligand compound selected from the group consisting of imidazole, imidazole derivatives, and combinations thereof, at least two quaternary ammonium salts, 1,3-dimethylurea and/or salts thereof; and an organic buffer. Accordingly, the reagent can be used in a method for determining the content of blood cells in a blood sample comprising: mixing a blood sample with a reagent according to the invention; and analyzing the content of the blood sample by employment of the Coulter principle and optionally a spectrophotometric analysis of the hemoglobin content.

WO 2006/042555 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/DK2005/000681

A. CLASSIFICATION OF SUBJECT MATTER
INV. G01N33/50 G01N15/12

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)
G01N

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4 962 038 A (J. H. CARTER ET AL.) 9 October 1990 (1990-10-09) cited in the application column 3, line 17 - line 26 column 1, line 10 - line 22; claims 1,14 -----	1-32
Y	US 5 227 304 A (S.-C. WONG) 13 July 1993 (1993-07-13) cited in the application claims 1,2,5,8,11 -----	1-32
Y	US 4 745 071 A (J. D. LAPICOLA ET AL.) 17 May 1988 (1988-05-17) cited in the application column 3, line 3 - line 22 column 3, line 49 - line 55; claims 1,6 -----	1-32
	-/--	

Further documents are listed in the continuation of Box C.

See patent family 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.
- *G* document member of the same patent family

Date of the actual completion of the international search

19 April 2006

Date of mailing of the international search report

26/04/2006

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

Griffith, G

INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK2005/000681

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 01/11338 A (U. D. LARSEN) 15 February 2001 (2001-02-15) abstract; figure 1	26
A	----- US 4 286 963 A (S. L. LEDIS ET AL) 1 September 1981 (1981-09-01) the whole document	1-32
A	----- US 5 958 781 A (S.-C. WONG ET AL.) 28 September 1999 (1999-09-28) cited in the application the whole document -----	1-32

INTERNATIONAL SEARCH REPORT

International application No
PCT/DK2005/000681

Patent document cited in search report	Publication date	Publication date	Patent family member(s)	Publication date
US 4962038	A	09-10-1990	NONE	
US 5227304	A	13-07-1993	NONE	
US 4745071	A	17-05-1988	NONE	
WO 0111338	A	15-02-2001	AU 778225 B2	25-11-2004
			AU 6280000 A	05-03-2001
			CA 2381285 A1	15-02-2001
			EP 1206692 A1	22-05-2002
			US 6959618 B1	01-11-2005
US 4286963	A	01-09-1981	NONE	
US 5958781	A	28-09-1999	US 6740527 B1	25-05-2004