

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
19 April 2007 (19.04.2007)

PCT

(10) International Publication Number
WO 2007/044071 A3

- (51) International Patent Classification:
G06F 17/11 (2006.01) G06F 17/50 (2006.01)
- (21) International Application Number:
PCT/US2006/015062
- (22) International Filing Date: 21 April 2006 (21.04.2006)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/673,436 21 April 2005 (21.04.2005) US
60/728,996 20 October 2005 (20.10.2005) US
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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, KN, 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.

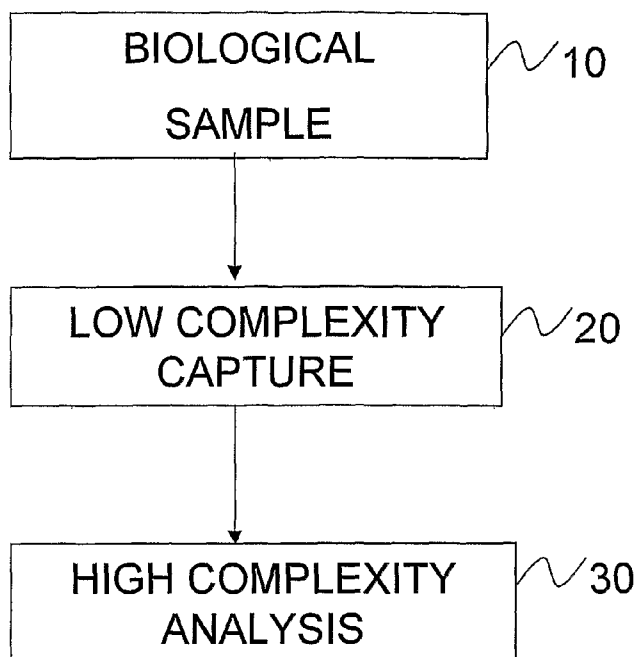
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, 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:
24 January 2008

[Continued on next page]

(54) Title: ANALYSIS OF HETEROGENEOUS NUCLEIC ACID SAMPLES



(57) Abstract: Methods for capturing and characterizing low frequency nucleic acid molecules indicative of diseases such as cancer (e.g. adenomas or early stage cancers) are provided. In some aspects, a low complexity capture technique is combined with a high complexity analytical technique. In some aspects, samples may be analyzed using a digital analysis and/or a single molecule sequencing technique.

WO 2007/044071 A3



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/US06/15062

A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **G06F 17/11(2006.01),17/50(2006.01)**
 G06F 17/11(2006.01),17/50(2006.01)

USPC: 702/19,23
 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. : 702/19,23

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)
 EAST, STN: single molecule sequencing; SNP detection; high-throughput

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	Schultz et al. (US PGPUB 2002/0009727), see paragraph [0003, 050-72],	1-3, 5-9 ----- 1, 4, 9-12
Y	Schwartz et al (US PAT 6, 221, 592), col. 6-21	10-12
Y	Wang et al (Science, Vol. 280, p. 1077-1082, 15 may 1998), see especially page 1077.	4

<input type="checkbox"/> Further documents are listed in the continuation of Box C.	<input type="checkbox"/> 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	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 09 November 2007 (09.11.2007)	Date of mailing of the international search report <div style="font-size: 1.5em; font-weight: bold; text-align: center;">30 NOV 2007</div>
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer <div style="font-size: 1.5em; font-family: cursive; text-align: center;">Karlheinz R. Skowronek</div> Karlheinz R. Skowronek Telephone No. (571) 272-0500