

(19) World Intellectual Property Organization
International Bureau

PCT

(43) International Publication Date
28 September 2006 (28.09.2006)(10) International Publication Number
WO 2006/102569 A2(51) International Patent Classification:
C12Q 1/68 (2006.01)[HU/US]; 225 Walden Street., Suite 1A, Cambridge, MA
02140 (US).(21) International Application Number:
PCT/US2006/010699(74) Agent: **WILLIAMS, Kathleen, M.**; Edwards Angell
Palmer & Dodge LLP, P.O. Box 55874, Boston, MA 02205
(US).

(22) International Filing Date: 23 March 2006 (23.03.2006)

(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.

(25) Filing Language: English

(26) Publication Language: English

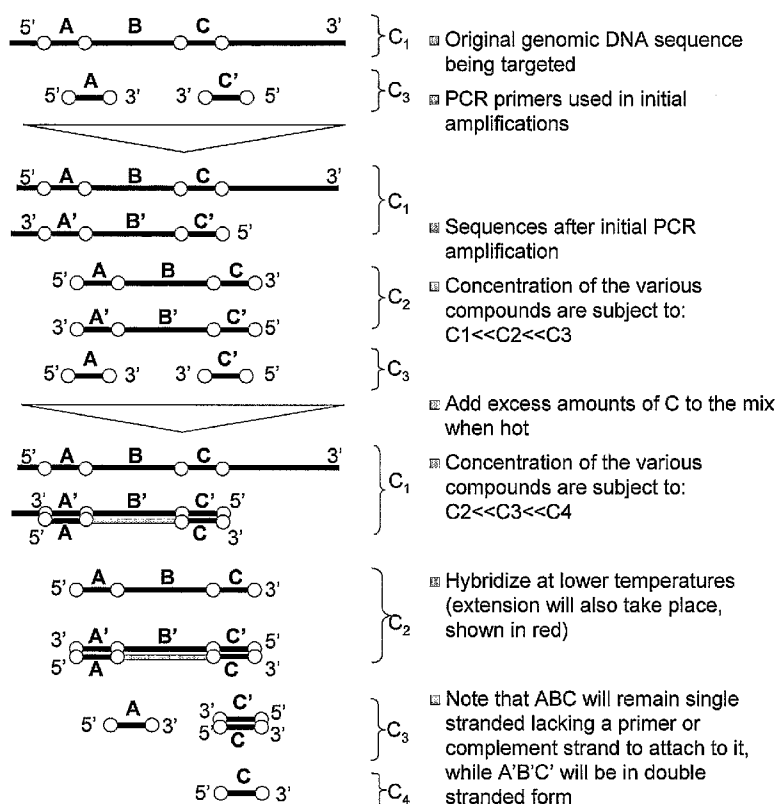
(30) Priority Data:
60/664,853 24 March 2005 (24.03.2005) US(71) Applicant (for all designated States except US): **ZORA-
GEN, INC.** [US/US]; 225 Walden Street., Suite 1A, Cam-
bridge, MA 02140 (US).(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): 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,

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SZASZ, Nora**

[Continued on next page]

(54) Title: NUCLEIC ACID DETECTION

ABC is the original target sequence
A' is the complement of A

(57) Abstract: The invention provides methods for the detection of the amount of a nucleic acid in a sample. The described methods exploit the ability to disrupt and redirect a PCR direction, and the ability to physically pair nucleic acid molecules in a sample that have a reference sequence with nucleic acid molecules in the sample that have a target sequence. The redirection of the PCR reaction enables partial amplification as a preparatory step to other techniques within the same tube. The pairing can result in the presence of unpaired target or reference sequence indicating a difference in the amount of the target sequence versus the reference sequence. The methods are broadly applicable for the determination of differences in the amount of nucleic acids in diagnostic and research applications.



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).

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.

Published:

- *without international search report and to be republished upon receipt of that report*