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SHAPERO, Michael [US/US]; 2449 Carson Street, Redwood City, CA 94061 (US). **LIU, Weiwei** [CN/US]; 765-86 San Antonio Road, Palo Alto, CA 94303 (US).

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(74) Agent: **TREANNIE, Lisa, M.**; Hamilton, Brook, Smith & Reynolds, P.C., 530 Virginia Road, P.O. Box 9133, Concord, MA 01742-9133 (US).

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(71) Applicant (*for all designated States except US*): **AFFYMETRIX, INC.** [US/US]; 3380 Central Expressway, Santa Clara, CA 95051 (US).

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(72) Inventors; and
(75) Inventors/Applicants (*for US only*): **JONES, Keith, W.** [US/US]; 980 Helena Drive, Sunnyvale, CA 95087 (US).

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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: COMPLEXITY MANAGEMENT OF GENOMIC DNA BY LOCUS SPECIFIC AMPLICATION

(57) Abstract: The present invention provides for novel methods and kits for reducing the complexity of a nucleic acid sample to interrogate a collection of target sequences. In one embodiment complexity reduction can be accomplished by extension of a locus specific capture probe followed by amplification of the extended capture probe using common primers. The locus specific capture probes may be attached to a solid support. Multiple DNA sequences may be amplified simultaneously to produce a reduced complexity sample. The invention further provides for analysis of the above sample to interrogate sequences of interest such as polymorphisms. The amplified sample may be hybridized to an array, which may be specifically designed to interrogate the desired fragments for the presence or absence of a polymorphism.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/18853

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12Q 1/68; C12P 19/34; C07H 21/04

US CL : 435/6, 91.1, 91.2, 536/24.3, 24.33

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. : 435/6, 91.1, 91.2, 536/24.3, 24.33

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)
Please See Continuation Sheet**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,280,950 B1 (LIPSHUTZ et al.) 28 August 2001 (28.08.2001), Figure 1.	82, 84, and 85
A,P	US 2003/0036069 A1 (SU, Xing) 20 February 2003 (20.02.2003), see entire document.	1-85
A	US 6,355,431 B1 (CHEE et al.) 12 March 2002 (13.03.2002), see entire document.	1-85
A,E	EP 1350853 A1 (AGBO et al.) 08 October 2003 (08.10.2003), see entire document.	1-85

☐ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

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"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	

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Commissioner for Patents
P.O. Box 1450
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Facsimile No. (703) 305-3230

Authorized officer

Young J. Kim

Telephone No. (571) 272-0507

INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:

Patent Databases (USPT, USPGP, EPO, JPO, DERWENT, IBM-TDB)

search terms: capture oligonucleotide, probes, DNA, nucleic acids, common, adapter, adopter, adopter, ligation, restriction enzymes, Type II, Exonuclease III, Exonuclease I, extension.