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(54) Title: SOLID PHASE FOR CAPTURE OF NUCLEIC ACIDS

(57) Abstract: A method of: providing a solid surface having a dendrimer molecule bound thereto and a single-stranded probe nucleic acid immobilized to the dendrimer; contacting the solid surface with a sample suspected or known to contain a double-stranded complimentary target nucleic acid; denaturing the target nucleic acids at thermal conditions and in a salt concentration sufficient to denature the target nucleic acids to produce denatured nucleic acids; and cooling the sample to allow hybridization of the denatured nucleic acids to the probe nucleic acids. An article having: one or more paramagnetic microbeads; a dendrimer molecule bound to the beads; and a probe nucleic acid immobilized to the dendrimer.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 08/70419

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - C40B 50/18 (2008.04)
USPC - 506/32

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(8)- C40B 50/18 (2008.04)
USPC- 506/32

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC- 506/17

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PubWest (US Patents, PgPub: classification), DialogClassic (Derwent, EPO, USPTO, WIPO/PCT fulltexts: keyword), GoogleScholar;
search terms: prob?, captur?, target?, bind?, immobiliz?, dendrimer?, branch?, phosphazene?, nucleic? acid?, single?, double?,
microbead?

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2005/0100893 A1 (GUNDERSON et al.) 12 May 2005 (12.05.2005), para [0003], [0017], [0031], [0053]-[0056], [0082], [0088], [0092], [0099], [0102], [0103], [0107], [0125], [0132], [0259], [0307]-[0313], [0363], [0378], [0563]-[0567], [0672]-[0674]	15, 17-19
Y	WO 02/033125 A1 (GETTS et al.) 25 Apr 2002 (25.04.2002), pg 6, para 2 to pg 7, para 1; pg 17, para 2 to pg 18, para 1	1-14, 16
Y	US 5,834,020 A (MARGERUM et al.) 10 Nov 1998 (10.11.1998), col 2, ln 35-44; col 2, ln 65 to col 3, ln 7; col 3, ln 43-47; col 5, ln 8-26; col 10, ln 10-25; col 11, ln 6-22; col 11, ln 55 to col 12, ln 31; col 14, ln 37-40; col 20, ln 8-16; col 20, ln 28-43; col 21, ln 21-49; col 23, ln 13-18; col 23, ln 42 to col 24, ln 9; col 24, ln 33-54	4, 16
A	US 2002/0051981 A1 (GETTS) 02 May 2002 (02.05.2002)	1-19
A	WO 01/02861 A1 (LOHSE) 11 Jan 2001 (11.02.2001)	1-19
A	WO 00/63437 A1 (GUNDERSON et al.) 26 Oct 2000 (26.10.2000)	1-19

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
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