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(54) Title: CONCENTRATION AND CLEANUP OF NUCLEIC ACID SAMPLES

(57) Abstract: Methods and devices are described for concentration and cleanup of samples containing bio-molecule analytes (e.g., polynucleotides, such as DNA, RNA, PNA). Various embodiments provide for pH-mediated sample concentration and cleanup of nucleic acid samples with channel devices (e.g., cross-T format, microchannel devices).

**INTERNATIONAL SEARCH REPORT**

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<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
IPC(7) : C12M 1/00; B01D 5702; C02F 1/40		
US CL : 204/403.01, 450, 451, 452, 453, 600, 601, 602, 603, 604, 606, 607, 608		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols) U.S. : 204/403.01, 450, 451, 452, 453, 600, 601, 602, 603, 604, 606, 607, 608		
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		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	XIONG et al. Base Stacking: pH-Mediated On-Column Sample Concentration for Capillary DNA Sequencing. Anal. Chem. September 1998, Vol. 70, No. 17, pages 3605-3611, especially pages 3605-3606.	1-2, 4-10, 12-21, 23-31
Y	US 6,017,765 A (YAMADA et al.) 25 January 2000 (25.01.2000), see columns 3-8.	1-2, 4-10, 12-21, 23-31
Y, P	US 6,387,235 B1 (IRIE et al.) 14 May 2002 (14.05.2002), see columns 8-13.	1-2, 4-10, 12-21, 23-31
A	US 5,552,028 A (MADABHUSHI et al.) 03 September 1996 (03.09.1996), see whole document.	1-31
<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:		
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"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
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**INTERNATIONAL SEARCH REPORT**

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**Continuation of B. FIELDS SEARCHED Item 3:**

Databases: USPAT, PG PUB, JPO, EPO, Derwent, Medline, Biosis, CaPlus, Embase, Biotechds

Terms: capillary, electrophoresis, pH-mediated, stacking, polynucleotide, reservoir, injection, separation, cross-T