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(71) Applicant (for all designated States except US): THE REGENTS OF THE UNIVERSITY OF CALIFORNIA [US/US]; 1111 Franklin Street, 12th Floor, Oakland, CA 94607-5200 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): OH, Sang-hyun [KR/US]; University Of Minnesota, Twin Cities, 200 Union Street Se, Room 5-119, Minneapolis, MN 55455 (US). SINGH, Amarendra, Kumar [IN/US]; 1 River Court, Apt. 2506, Jersey City, NJ 07310 (US). ZHANG, Yanting [CN/US]; 480 Whitman Street, Apt. 103, Goleta, CA 93117 (US). NAWARATHNA, Dharmakirthi [LK/US]; 15505 Williams Street, N7, Tustin, CA 92780 (US). KIM, Unyoung [KR/US]; 762 Birch Walk, Apt. J, Goleta, CA 93117 (US). DAUGHERTY, Patrick, Sean [US/US]; 917 N. Patterson Avenue, Santa Barbara, CA 93111 (US). SOH, Hyongsok [KR/US]; University Of

California, Santa Barbara, Department Of Mechanical & Environmental Engineeri, Room 2361c, Engineering Ii, Mc 5070, Santa Barbara, CA 93106-5070 (US). FER-GUSON, Brian, Scott [CA/US]; 92 Orange Avenue, #B, Goleta, CA 93117 (US).

(74) Agent: FRANCIS, Carol, L.; Bozicevic, Field & Francis LLP, 1900 University Avenue, Suite 200, East Palo Alto, CA 94303 (US).

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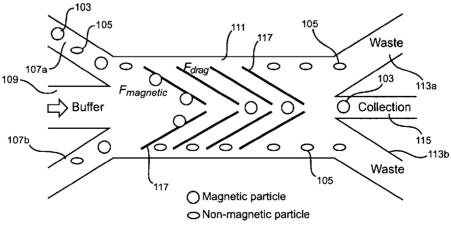
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(54) Title: MICROFLUIDIC MAGNETOPHORETIC DEVICE AND METHODS FOR USING THE SAME



(57) Abstract: A microfluidic device may employ one or more sorting stations for separating target species from other species in a sample. The separation is driven by magnetophoresis. A sorting station generally includes separate buffer and sample streams. A magnetic field gradient applied to the sorting station deflects the flow path of magnetic particles (which selectively label the target species) from a sample stream into a buffer stream. The buffer stream leaving the sorting station is used to detect or further process purified target species labeled with the magnetic particles.



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. CLASSIFICATION OF SUBJECT MATTER NV. B01L3/00 B03C1 A. CLAS G01N35/00 G01N33/543 B03C1/02 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) B01L B03C GO1N 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 practical, search terms used) EPO-Internal, PAJ, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Category* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. χ DE 10 2004 040785 A1 (KIST EUROP 1 - 45FORSCHUNGSGMBH [DE]) 2 March 2006 (2006-03-02) paragraphs [0001], [0002]; claim 1; figures 1.2 WO 98/10267 A (TECHNICAL UNIVERSITY OF χ 1 - 45DENMAR [DK]; BLANKENSTEIN GERT [DE]) 12 March 1998 (1998-03-12) page 13, lines 5-8; claims 1,10,11; figure WO 03/066191 A (COLORADO SCHOOL OF MINES Α 1 - 45[US]) 14 August 2003 (2003-08-14) the whole document Further documents are listed in the continuation of Box C. See patent family annex. 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 "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "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 filing date "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. document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 8 April 2008 16/04/2008 Name and mailing address of the ISA/ Authorized officer European Patent Office, P.B. 5818 Patentiaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016 Skowronski, Maik

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