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- of inventorship (Rule 4.17(iv))

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(54) Title: METHOD FOR MULTIPLEXED MICROFLUIDIC BEAD-BASED IMMUNOASSAY

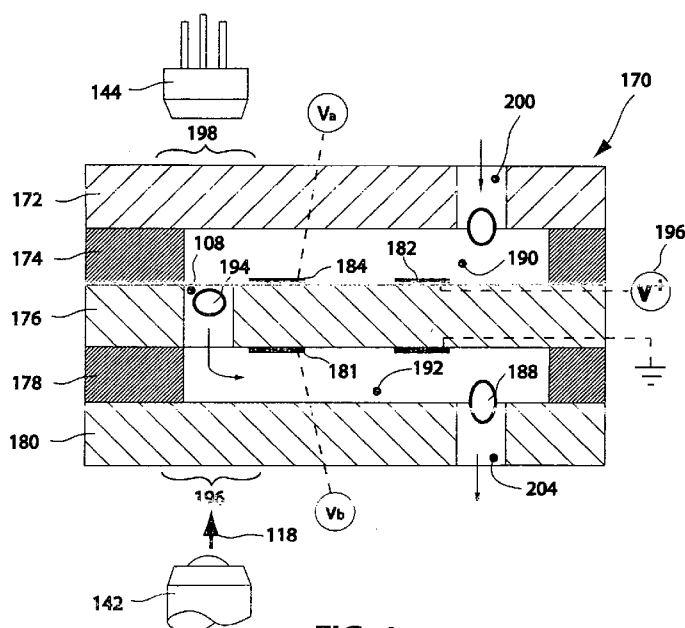


FIG. 4

(57) Abstract: A method for performing multiplexed bead-based immunoassays using a microfluidic cassette capable of detecting a particle passing in substantially single file through an interrogation zone and generating a Coulter effect signal responsive to a characteristic of the particle. A fluid sample may be prepared by associating antibody-coated beads of different sizes to particles of interest. A first multiplexing option may be based on bead size, in which case the intensity of the Coulter signal is used to sort or characterize the particles. A second multiplexing option may be based on detection of Stokes' shift phenomena, or even simply emission intensity, in which case particles may be characterized responsive to intensity of the signal resulting from detection of radiation. The first and second multiplexing options may be employed together to populate an array of particle characteristics.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2012/000237

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G01N 15/06 (2012.01)

USPC - 73/61.71

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) - G01N 11/00, 15/06; C12Q 1/06 (2012.01)

USPC - 73/61.71, 61.73; 435/39; 436/518

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)

PatBase, Orbit.com, GooglePatents, Proquest

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2009/0272179 A1 (AYLIFFE) 05 November 2009 (05.11.2009) entire document	1-13
Y	US 6,159,748 A (HECHINGER) 12 December 2000 (12.12.2000) entire document	1-13
Y	US 2009/0325217 A1 (LUSCHER) 31 December 2009 (31.12.2009) entire document	4, 6
Y	US 2009/0189088 A1 (AYLIFFE et al) 30 July 2009 (30.07.2009) entire document	5
Y	US 2010/0217172 A1 (HYDE et al) 26 August 2010 (26.08.2010) entire document	12
A	US 5,326,692 A (BRINKLEY et al) 05 July 1994 (05.07.1994) entire document	1-13
A	US 4,352,558 A (EISERT) 05 October 1982 (05.10.1982) entire document	1-13

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31 July 2012

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