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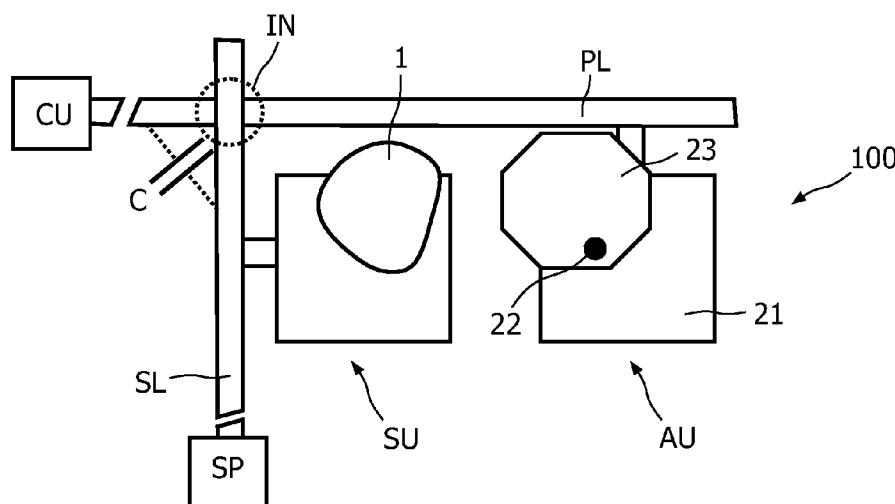
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(54) Title: MICROELECTRONIC DEVICE WITH POWER LINES AND SIGNAL LINES



(57) Abstract: The invention relates to a microelectronic device for manipulating a sample, the device comprising an array of actuator units (AU) and an array of sensitive units (SU). The actuator units (AU) may particularly exert dielectrophoretic forces on a sample (1) in an adjacent sample chamber, and the sensitive units (SU) optionally measure properties of said sample. Furthermore, the actuator units (AU) are linked to a set of power lines (PL) and the sensitive units (SU) are linked to a set of signal lines (SL), wherein the routing of these lines is such that the effects of parasitic couplings are minimized for a given set of alternating electrical power signals on the power lines. The power lines (PL) may particularly be supplied with alternating electrical signals that are identical besides a phase shift. Optionally, the couplings between the power lines and the signal lines are adapted to provide a maximal compensation of cross-talk effects.

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A. CLASSIFICATION OF SUBJECT MATTER
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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)
B03C

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)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	US 2004/226819 A1 (TALARY MARK STUART [GB] ET AL) 18 November 2004 (2004-11-18) figure 7a	1-12
A	US 6 113 768 A (FUHR GUENTER [DE] ET AL) 5 September 2000 (2000-09-05) figure 1	1-12
A	US 2003/057199 A1 (VILLA FLAVIO [IT] ET AL) 27 March 2003 (2003-03-27) figures 1-6	1-12



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INTERNATIONAL SEARCH REPORT

Information on patent family members

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