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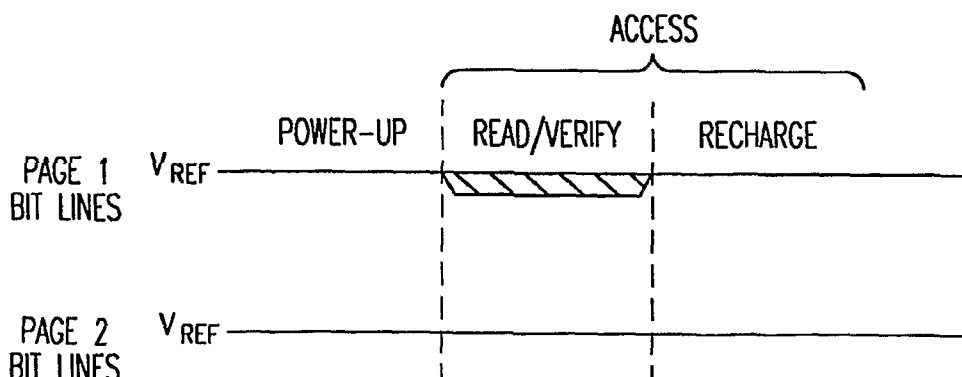
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(54) Title: NAND MEMORY DEVICE COLUMN CHARGING



(57) Abstract: Embodiments of NAND Flash memory devices and methods recognize that effective column coupling capacitance can be reduced by maintaining a sourced voltage on adjacent columns of an array. Maintaining the columns in a charged state prior to array operations (read, write, and program) reduces current surges and improves data read timing. Devices and methods charge the array columns at pre-charge and following array access operations.



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INTERNATIONAL SEARCH REPORT

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PCT/US2007/004990

A. CLASSIFICATION OF SUBJECT MATTER

INV. G11C7/12 G11C16/04
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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)
G11C

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, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 058 044 A (SUGIURA YOSHIHISA [JP] ET AL) 2 May 2000 (2000-05-02) abstract; figure 9 column 5, line 60 - column 6, line 42 column 11, line 19 - column 14, line 53	1,2,4-9, 11-15
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A	US 6 240 020 B1 (YANG ANDREW [US] ET AL) 29 May 2001 (2001-05-29) the whole document	1-15
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☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 046 940 A (TAKEUCHI KEN [JP] ET AL) 4 April 2000 (2000-04-04) column 27, line 30 - column 30, line 38; figures 31A, 31B -----	1-15

INTERNATIONAL SEARCH REPORT

Information on patent family members

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