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- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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(54) Title: HIGH VOLTAGE MOSFET AND METHOD OF MAKING THE SAME

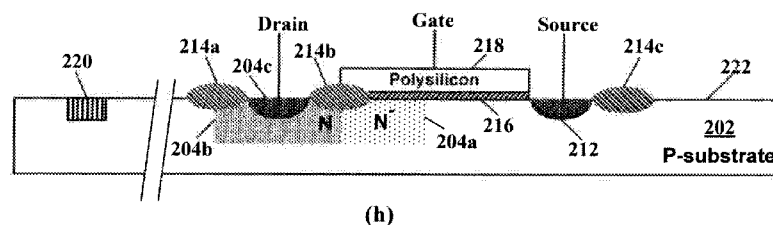


Figure 2A

(57) Abstract: At least one N-well implant having a different doping level is formed in a silicon substrate (202; 402) by first creating a "zero" layer (222) by etching the substrate with an alignment target (220) for aligning future process masks thereto. This alignment target is outside of any active device area. By using at least one N-well (204b; 404a) implant having a different doping level in combination with the substrate, a graded junction in the drift area (204b, 204a; 404a, 402) of a metal oxide semiconductor (MOS) field effect transistor (FET) can be created and a pseudo LDD structure may be realized thereby.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2012/047826

A. CLASSIFICATION OF SUBJECT MATTER
INV. H01L29/78 H01L29/08 H01L29/36 H01L29/10 H01L23/544
H01L21/336
ADD. H01L29/423 H01L21/266

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)
H01L

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)

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 5 811 850 A (SMAYLING M C ET AL) 22 September 1998 (1998-09-22) column 5, line 61 - column 9, line 32; figures 1a-1i, 2 column 3, line 22 - line 32 column 5, line 30 - line 37 column 5, line 55 - line 60 -----	1-30
A	JP 2004 200359 A (RICOH KK) 15 July 2004 (2004-07-15) abstract; figure 1 -----	8,30
A	EP 0 964 454 A1 (MOTOROLA INC) 15 December 1999 (1999-12-15) paragraph [0006] - paragraph [0030]; figures 1-6 -----	1-30



Further documents are listed in the continuation of Box C.



See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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