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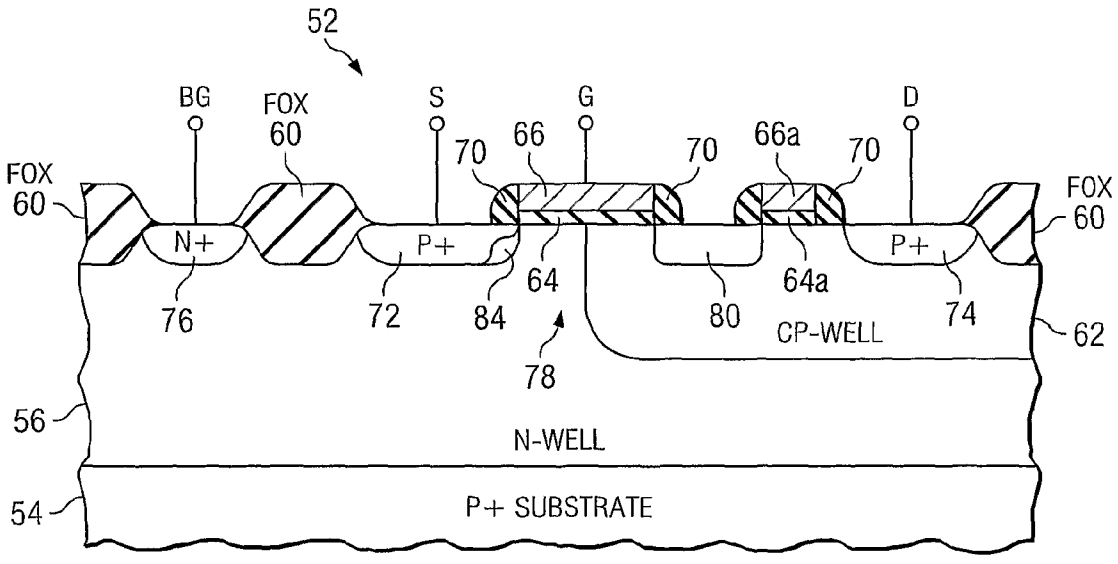
Declarations under Rule 4.17:
— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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(54) Title: DRAIN EXTENDED MOS TRANSISTORS AND METHODS FOR MAKING THE SAME



(57) Abstract: Drain extended MOS transistors (52) and fabrication methods therefor are presented, in which a voltage drop region (80) is provided in a well (62) of a second conductivity type between a channel (78) of a first conductivity type and a drain (74) to inhibit channel hot carrier or direct tunneling degradation of the transistor gate dielectric (64) for high voltage operation. The voltage drop region (80) has more dopants of the first conductivity type and/or fewer dopants of the second conductivity type than does the well (62) so as to shift the high fields away from the transistor gate dielectric (64).

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US05/24371

A. CLASSIFICATION OF SUBJECT MATTER
IPC: **H01L 21/336**(2006.01),**21/338**(2006.01),**21/8238**(2006.01)

USPC: 438/179,232,262,286,290,306
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)
U.S. : 438/179, 232, 262, 286, 290, 306

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 5,831,320 A (KWON et al.) 3 November 1998 (3.11.1998), see entire patent.	1-8 --- 9, 10
Y	EP 1265277 A2 (NANDAKUR et al.) 11 December 2002 (11.12.2002), see fig. 3 and para.[0035-0040].	9, 10

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
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