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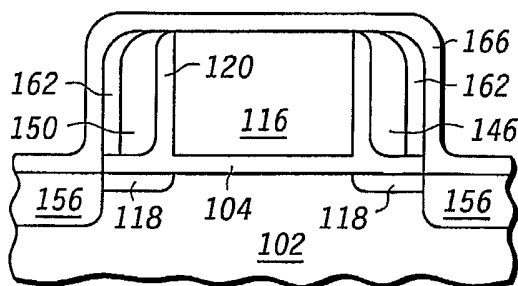
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ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: SEMICONDUCTOR FABRICATION PROCESS WITH ASYMMETRICAL CONDUCTIVE SPACERS



(57) Abstract: A semiconductor process and resulting transistor includes forming conductive extension spacers (146, 150) on either side of a gate electrode (116). Conductive extensions (146, 150) and gate electrode 116 are independently doped such that each of the structures may be n-type or p-type. Source/drain regions (156) are implanted laterally disposed on either side of the spacers (146, 150). Spacers (146, 150) may be independently doped by using a first angled implant (132) to dope first extension spacer (146) and a second angled implant (140) to dope second spacer (150). In one embodiment, the use of differently doped extension spacers (146, 150) eliminates the need for threshold adjustment channel implants.

INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : H01L 21/336, 21/4763, 27/088, 29/76, 29/94 US CL : 438/267,283,303,304,596; 257/336,344,408,900 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. : 438/267,283,303,304,596; 257/336,344,408,900 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) Please See Continuation Sheet		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,631,176 A (KAPOOR), 20 May 1997 (20.05.1997), column 2, lines 62-66.	10
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A	Abstract and Figures 3 and 4c.	1-9 and 11-20
Y	US 6,043,545 A (TSENG et al.) 28 March 2000 (28.03.2000), column 4, lines 4-15.	10 and 14
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A	Abstract and Figure 2J.	1-9, 11-13 and 15-20
Y	US 6,399,451 B1 (LIM et al.) 4 June 2002 (04.06.2002), see figures 8	10 and 14
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A	Abstract and Figure 8.	1-9, 11-13 and 15-20
A	US 4,868,617 A (CHIAO et al.) 19 September 1989 (19.09.1989), Abstract and Figure 6.	1-20
A	US 5,089,870 A (HAOND et al.) 18 February 1992 (18.02.1992), Abstract and Figures 2B and 2C.	1-20
A	US 6,031,266 A (HONNA) 29 February 2000 (29.02.2000), Abstract and Figure 3E.	1-20
☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.		
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Authorized officer Tom Thomas Telephone No. (571) 272-1950 DEBORAH A. THOMAS PARALEGAL SPECIALIST GROUP 1300 <i>pat</i>

INTERNATIONAL SEARCH REPORT

International application No.
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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 5,631,482 A (HONG) 20 May 1997 (20.05.1997), Abstract and Figure 3K.	1-20

INTERNATIONAL SEARCH REPORT

International application No.
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Continuation of B. FIELDS SEARCHED Item 3:

Databases: USPAT, US-PGPUB, EPO, JPO, DERWENT, IBM_TDB

Search terms: (conductive or doped or doping or implant or implanted or implanting or impurity or impurities) near3 (spacer or sidewalls or strap); floating near15 (sidewalls or spacer or strap); LDD; and (Silicide or Salicide).