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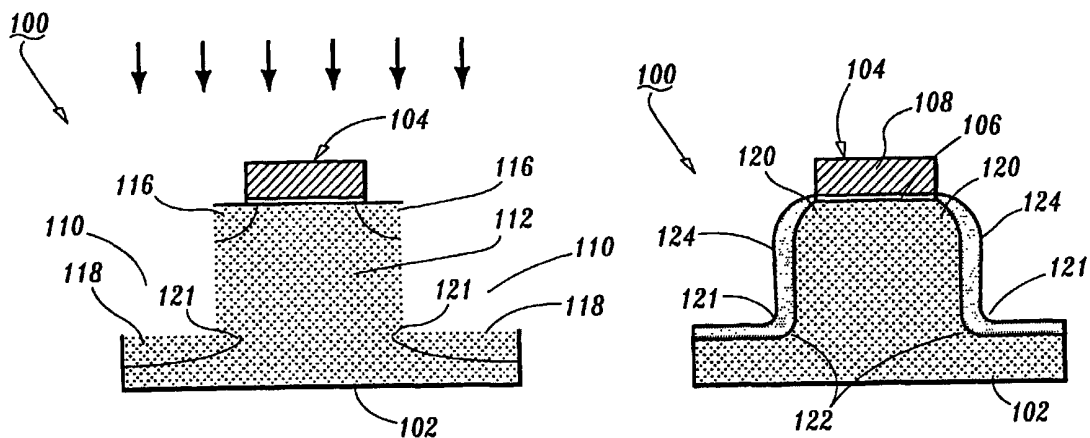
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(54) Title: SILICON CORNER ROUNDING BY ION IMPLANTATION FOR SHALLOW TRENCH ISOLATION



(57) Abstract: A method for rounding corners of a silicon substrate, in accordance with the present invention, includes forming a plateau on a silicon substrate having corners at edges of the plateau. A mask is formed on a top surface of the plateau, which is recessed back from vertical edges of the plateau to provide exposed horizontal portions. Fluorine or Argon dopants are implanted at the corners and on the exposed portions, and the substrate is oxidized such that the corners become rounded providing a gradual transition at the edges of the plateau.



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B. FIELDS SEARCHED		
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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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X	US 5 372 951 A (CHRISTIAN CRAIG W ET AL) 13 December 1994 (1994-12-13) abstract; figures 3A-5 column 7, line 28 -column 8, line 6 --- -/--	15,16, 19,20
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.		
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer <div style="text-align: center; font-weight: bold;">Wirner, C</div>	

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