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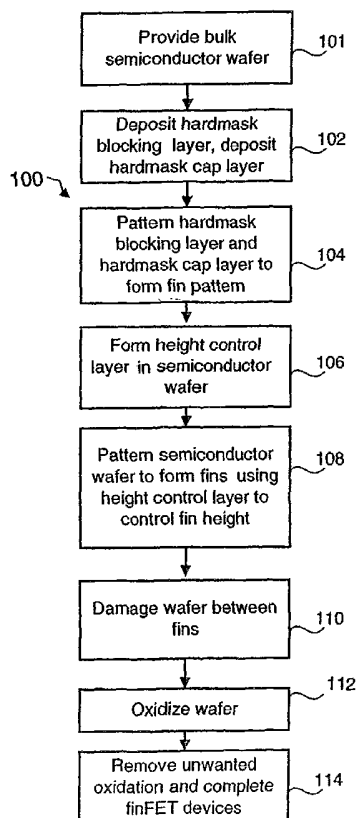
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[Continued on next page]

(54) Title: FIN FET DEVICES FROM BULK SEMICONDUCTOR AND METHOD FOR FORMING



(57) Abstract: The present invention thus provides a device structure and method for forming fin (210) Field Effect Transistors (FETs) from bulk semiconductor wafers (200) while providing improved wafer to wafer device uniformity. Specifically, the invention provides a height control layer (212), such as a damaged portion of the substrate (200) or a marker layer, which provides uniformity of fin height. Additionally, the invention provides isolation (214) between fins (210) which also provides for optimization and narrowing of fin width by selective oxidation of a portion (212) of the substrate relative to an oxidized portion (216) of the fin sidewalk. The device structure and methods of the present invention thus provide the advantages of uniform finFET fabrication while using cost effect bulk wafers.



ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
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A. CLASSIFICATION OF SUBJECT MATTER

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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)

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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.
Y, P	US 6,525,403 B2 (INABA et al) 25 February 2003, col. 4, lines 16-17, 29-33.	1-3, 11, 13, 14

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

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