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(54) Title: SELECTIVE DEPOSITION OF POLYMER FILMS ON BARE SILICON INSTEAD OF OXIDE SURFACE

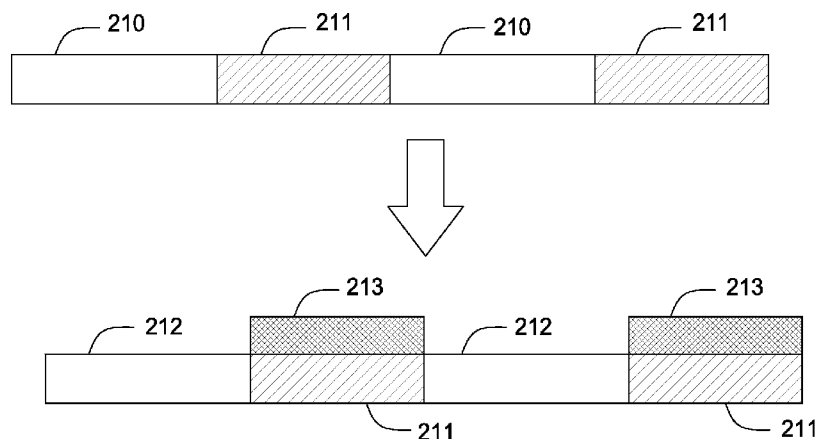


FIG. 2

(57) Abstract: A method of selective deposition on silicon substrates having regions of bare silicon and regions of oxide formed thereon. The method includes placing the substrate on a wafer support inside a processing chamber, introducing a carbon-containing gas into the reactor, applying a bias to the substrate, generating a plasma from the carbon-containing gas, implanting carbon ions into the regions of oxide on the substrate by a plasma doping process, and depositing a carbon-containing film on the bare silicon regions.



A. CLASSIFICATION OF SUBJECT MATTER***H01L 21/205(2006.01)i***

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 21/205; H01L 21/36; H01L 21/20; H01L 21/336; H01L 21/8234

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: carbon, silicon, oxide, selectively, implant

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2007-0161216 A1 (MATTHIAS BAUER) 12 July 2007 See abstract; paragraphs [0034]-[0041], [0053]-[0057]; and figures 1-6.	1-15
A	US 2006-0068553 A1 (VOON-YEW THEAN et al.) 30 March 2006 See abstract; paragraphs [0015]-[0020]; and figures 1-5.	1-15
A	US 2006-0008961 A1 (SEUNG-HWAN LEE et al.) 12 January 2006 See abstract; paragraphs [0041]-[0063]; and figures 3-8.	1-15
A	US 2011-0124169 A1 (ZHIYUAN YE et al.) 26 May 2011 See abstract; paragraphs [0017]-[0047]; and figures 1-2D.	1-15

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

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

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