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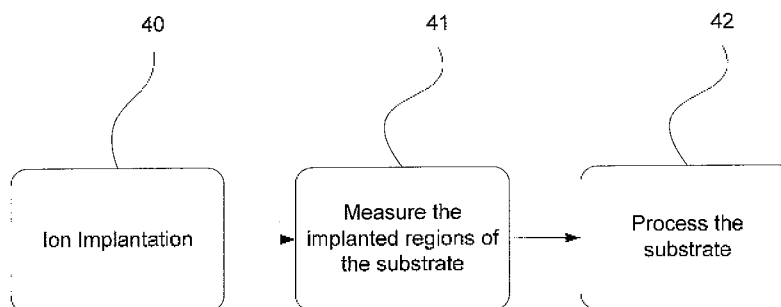


FIG. 10

(57) Abstract: An improved, lower cost method of processing substrates, such as to create solar cells is disclosed. The doped regions are created on the substrate, using a mas or without the use of lithography or masks. After the implantation is complete, visual recognition is used to determine the exact region that was implanted. This information can then be used by subsequent process steps to maintain this alignment. This information can also be fed back to the ion implantation equipment to modify the implant parameters. These techniques can also be used in other ion implanter applications.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2009/047926**A. CLASSIFICATION OF SUBJECT MATTER*****H01L 21/265(2009.01)i, H01L 21/66(2009.01)i, H01L 21/3115(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 21/265; G01N 21/00; G01N 21/55; H01L 21/027; H01L 21/266

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

(Chinese Patents and application for patent)

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

eKOMPASS(KIPO internal) & Keywords: "ion", "implantation", "detection"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 04-115517 A (MITSUBISHI ELECTRIC CORP.) 16 April 1992	1,3,7-19
A	See abstract; page 2; figure 1	2,4-6
A	US 7190458 B2 (BORDEN et al.) 13 March 2007 See abstract; figures 2A-2C; column 10; claims 6 & 7	1-19
A	US 2007-0188762 A1 (SMITH) 16 August 2007 See abstract; figure 1; page 3; claim 11	1-19

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

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"&" document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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PCT/US2009/047926

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