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(54) Title: A PROCESS FOR THE MANUFACTURE OF SEMICONDUCTOR DEVICES COMPRISING THE CHEMICAL MECHANICAL POLISHING OF ELEMENTAL GERMANIUM AND/OR $\text{Si}_{1-x}\text{Ge}_x$ MATERIAL IN THE PRESENCE OF A CMP COMPOSITION HAVING A pH VALUE OF 3.0 TO 5.5

(57) Abstract: A process for the manufacture of semiconductor devices comprising the chemical mechanical polishing of elemental germanium and/or $\text{Si}_{1-x}\text{Ge}_x$ material with $0.1 \leq x < 1$ in the presence of a chemical mechanical polishing (CMP) composition having a pH value in the range of from 3.0 to 5.5 and comprising: (A) inorganic particles, organic particles, or a mixture or composite thereof, (B) at least one type of an oxidizing agent, and (C) an aqueous medium.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB2012/053878

A. CLASSIFICATION OF SUBJECT MATTER

B24B 29/02(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)

IPC: B24B 29/-;

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)

WPI,EPODOC;CNPAT;CNKI;ISI web of Knowledge; CA: Ge,germanium,Si1-xGex,polishing,CMP,pH value

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CN101372606A(SHANGHAI MICRO SYSTEM&INFORMATION TECH.) 25.Feb.2009 (25.02.2009),claims 1, 2 and 10	1-15

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

* Special categories of cited documents:	“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
“A” document defining the general state of the art which is not considered to be of particular relevance	“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
“E” earlier application or patent but published on or after the international filing date	“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
“L” document which may throw doubts on priority claim (S) or which is cited to establish the publication date of another citation or other special reason (as specified)	“&”document member of the same patent family
“O” document referring to an oral disclosure, use, exhibition or other means	
“P” document published prior to the international filing date but later than the priority date claimed	

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INTERNATIONAL SEARCH REPORT
Information on patent family members

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Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
CN101372606A	25.02.2009	None	