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(54) **Title:** USE OF CHEMICAL-MECHANICAL POLISHING (CMP) COMPOSITION FOR POLISHING SUBSTANCE OR LAYER CONTAINING AT LEAST ONE III-V MATERIAL

(57) **Abstract:** Described is a use of a chemical-mechanical polishing (CMP) composition for polishing a substrate or layer containing one or more III-V materials, wherein the chemical-mechanical polishing (CMP) composition comprises the following components: (A) surface modified silica particles having a negative zeta potential of -15 mV or below at a pH in the range of from 2 to 6 (B) one or more constituents selected from the group consisting of (i) substituted and unsubstituted triazoles not having an aromatic ring annealed to the triazol ring, (ii) benzimidazole, (iii) chelating agents selected from the group consisting of amino acids with two or more carboxyl groups, aliphatic carboxylic acids, and the respective salts thereof, and (iv) homopolymers and copolymers of acrylic acid, and the respective salts thereof, (C) water (D) optionally one or more further constituents, wherein the pH of the composition is in the range of from 2 to 6.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER		
C09G 1/02(2006.01)i; C09K 3/14(2006.01)i; H01L 21/304(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) C09G; C09K; H01L		
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) EPODOC,WPL,CNKI,CNPAT:polish, silica, triazole, GaN, GaAs, InAs, potential		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2006028759 A2 (PRAXAIR S.T. TECHNOLOGY, INC. ET AL.) 16 March 2006 (2006-03-16) description, paragraphs 0026, 0039, 0042 and 0046-0049	1-15
X	WO 2011093153 A1 (JSR CORPORATION ET AL.) 04 August 2011 (2011-08-04) description, paragraphs 0023-0055	1-15
X	US 2005079718 A1 (SIDDIQUI, JUNAID AHMED, ET AL.) 14 April 2005 (2005-04-14) description, paragraphs 0031-0033 and 0047-0056	1-15
A	EP 1772503 A2 (SUMITOMO ELECTRIC INDUSTRIES, LTD.) 11 April 2007 (2007-04-11) description, examples 1-4	1-15
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> 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	“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
“E”	earlier application or patent but published on or after the international filing date	“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
“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)	“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
“O”	document referring to an oral disclosure, use, exhibition or other means	“&” document member of the same patent family
“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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