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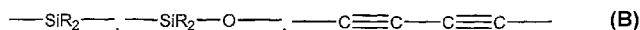
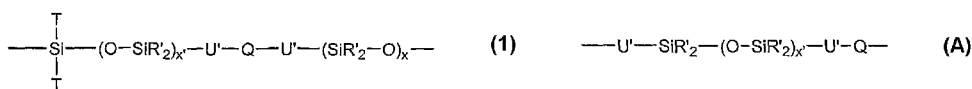
— with international search report

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22 February 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SYNTHESIS OF ELASTOMERIC CARBORANE-SILOXANES BY HYDROSILATION REACTIONS



(57) Abstract: A carborane-siloxane compound is provided having the repeat unit (1) or (A). Q contains any of (B) carboranyl, and U'. Each R and R' is alkyl, aryl, alkylaryl, haloalkyl, haloaryl, or mixtures thereof. Each U' is derivable from hydrosilation of an alkenyl or alkynyl group. Each T is alkyl, aryl, alkylaryl, haloalkyl, haloaryl, mixtures thereof,  $-(\text{O---SiR}'_2)_x\text{H}$ , or the repeat unit. Each x and x' is a positive integer. The compounds may be made by reacting a carborane-siloxane precursor having unsaturated end groups with a siloxane crosslinker in the presence of a hydrosilation catalyst.

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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/22261

## A. CLASSIFICATION OF SUBJECT MATTER

IPC: C08G 77/398( 2006.01)

USPC: 528/5,32,31

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)

U.S. : 528/5, 32, 31

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)  
WEST, carbosiloxane, carborane, acetylene, hydrosilylation

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,187,890 A (FEHN et al) 13 February 2001 (13.02.2001) col. 2, lines 25-39, col. 4, line 1 to col. 5, line 63, col. 6, lines 19-54 and Examples	1-2, 4-19, 21-22, 24-31, 33, 35, 39
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Y		3, 20, 23, 32, 34-38
---	US 6,225,247 A (KELLER et al) 1 May 2001 (01.05.2001) col. 3, lines 12-67, col. 4, lines 23-65	-----
---		3, 20, 23, 32
Y		
---	US 5,145,886 A (OXMAN et al) 8 September 1992 (08.09.1992) col. 2, line 35 to col. 3, line 40	-----
---		34-35, 38
Y		

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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document member of the same patent family

Date of the actual completion of the international search

29 September 2006 (29.09.2006)

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## C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
--- Y	US 3,775,452 A (KARSTEDT) 27 November 1973 (27.11.1973) col. 1, line 64 to col. 2, line 13	34, 36-37