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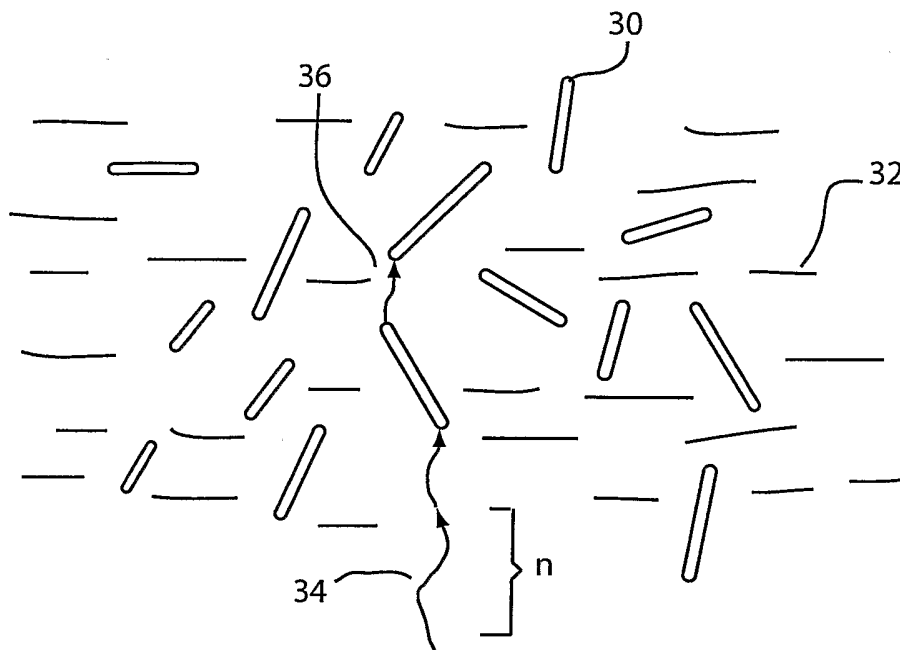
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(54) **Title:** HIGH THERMAL CONDUCTIVITY MATERIALS WITH GRAFTED SURFACE FUNCTIONAL GROUPS



(57) **Abstract:** In one embodiment the present invention provides for high thermal conductivity materials (30) that have surface functional groups grafted thereto. These grafted surface functional groups then form a continuous bond with a host resin matrix (32) that the high thermal conductivity materials (30) are added to.

WO 2005/123825 A3



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.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 C08L101/00 C08K3/00 C08K7/00 H01B3/00

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)
 H01B C08L C08K

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 practical, search terms used)
 EPO-Internal, CHEM ABS Data, WPI Data, PAJ, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 255 738 B1 (DISTEFANO THOMAS H ET AL) 3 July 2001 (2001-07-03) column 2, lines 8-16; claims 1,2,5,9; examples	1,2,6,7, 15,17,18
X	WO 03/040445 A (SHOWA DENKO K.K; YAMAMOTO, RYUJI; MORITA, TOSHIO) 15 May 2003 (2003-05-15) page 1, lines 26-31; examples 1-3 ----- -/--	1,3-5,7, 15,17

Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *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) *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	*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 *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 *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. *&* document member of the same patent family
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Date of the actual completion of the international search	Date of mailing of the international search report
25 November 2005	20/12/2005

Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Pollio, M
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International Application No
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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.
X	<p>DATABASE CA 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; MATSUMURA, TOMOYUKI ET AL: "Phase structures and thermal and conductive properties of epoxy-alumina hybrids filled with conductive fillers" XP002356007 retrieved from STN Database accession no. 2002:257918 abstract & NIPPON SETCHAKU GAKKAISHI , 38(3), 78-84 CODEN: NSEGE7; ISSN: 0916-4812, 2002,</p> <p style="text-align: center;">-----</p>	1,2

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6255738	B1	03-07-2001	NONE
WO 03040445	A	15-05-2003	NONE