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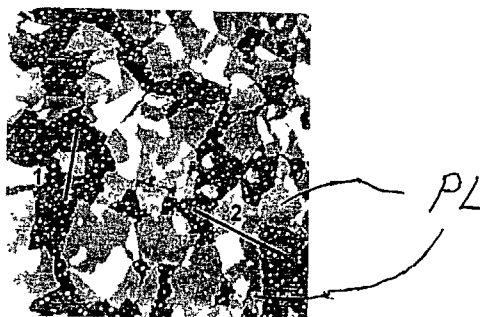
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(57) Abstract: A method of making a dispersion of reduced graphite oxide nanoplatelets involves providing a dispersion of graphite oxide nanoplatelets and reducing the graphite oxide nanoplatelets in the dispersion in the presence of a reducing agent and a polymer. The reduced graphite oxide nanoplatelets are reduced to an extent to provide a higher C/O ratio than graphite oxide. A stable dispersion having polymer-treated reduced graphite oxide nanoplatelets dispersed in a dispersing medium, such as water or organic liquid is provided. The polymer-treated, reduced graphite oxide nanoplatelets can be distributed in a polymer matrix to provide a composite material.



WO 2008/048295 A3

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International application No

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A CLASSIFICATION OF SUBJECT MATTER

IPC(8) - H01 B 1/24 (2008.04)

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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)**

USPC- 252/51 1

IPC (8) H01B 1/24(2008 04)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

USPC- 252/51 1 (keyword search)

IPC (8) H01 B 1/24(2008 04) (keyword search)

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

PubWEST DB=PGPB,USPT,USOC,EPAB,JPAB / Google Scholar/Patents

Search terms used dispersion formation graphite nanocomposites isocyanate

C DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
X ---- Y	US 2005/0077503 A1 (GOTOU et al) 14 April 2005 (14 04 2005), para [0005], [0006], [0024], [0036]-[0038], [0043]-[0044], [0048], [0052], [0057]-[0060],[0063], [0083], [0087]	1-1 1, 13-23, 25-31 ----- 12, 24
Y	US 3,695,916 A (PIKE) 03 October 1972 (03 10 1972), Col 2, ln 6-16	12
Y	Kovtyukhova et al "Layer-by-Layer Assembly of Ultrathin Composite Films from Micron-Sized Graphite Oxide Sheets and Polycations", Chemical Material, Vo1 11, pp 771-778, 28 January 1999 (28 01 1999), pg 773	24

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