(54) Title: POLYMER COMPOSITE MATERIAL STRUCTURES COMPRISING CARBON BASED CONDUCTIVE LOADS

(57) Abstract: The present invention provides a polymer composite material structure comprising at least one layer of a foamed polymer composite material comprising a foamed polymer matrix and 0.1 wt% to 6 wt% carbon based conductive loads, such as e.g. carbon nanotubes, dispersed in the foamed polymer matrix. The polymer composite material structure according to the embodiments of the present invention shows good shielding and absorbing properties notwithstanding the low amount of carbon based conductive loads. The present invention furthermore provides a method for forming a polymer composite material structure comprising carbon based conductive loads.

[Continued on next page]
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(84) **Designated States** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SL, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C08J H05K

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, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<th>Relevant to claim No.</th>
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<td>DATABASE WPI Week 199724 Thomson Scientific, London, GB; AN 1997-265583 XP002436716 &amp; JP 09 092996 A (MATSUSHITA ELECTRIC WORKS LTD) 4 April 1997 (1997-04-04)</td>
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<td>Y</td>
<td>abstract</td>
<td>3,8, 10-12</td>
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Further documents are listed in the continuation of Box C

See patent family annex

Date of the actual completion of the international search

23 May 2008

Date of mailing of the international search report

02/06/2008

Name and mailing address of the ISA/
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2230 HV Rijswijk Tel: (+31-70) 340-2040, Tx: 31 651 epic nl, Fax (+31-70) 340-3016

Oudot, René

Authorized officer
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