

Title (en)
MAGNETORHEOLOGICAL ELASTOMERS (MREs) WITH POLYNORBORNENE AS A CARRIER MEDIUM, PROCESSES FOR PRODUCING SUCH ELASTOMER COMPOSITES AND THEIR USE

Title (de)
MAGNETO-RHEOLOGISCHE ELASTOMERE (MRE) MIT POLYNORBORNEN ALS TRÄGERMEDIUM, VERFAHREN ZUR HERSTELLUNG SOLCHER ELASTOMERKOMPOSITE SOWIE DEREN VERWENDUNG

Title (fr)
ÉLASTOMÈRES MAGNÉTORHÉOLOGIQUES (EMR) UTILISANT DU POLYNORBORNÈNE COMME MILIEU SUPPORT, PROCÉDÉ DE PRODUCTION DE COMPOSITES ÉLASTOMÈRES DE CE TYPE ET LEUR UTILISATION

Publication
EP 2010598 A1 20090107 (DE)

Application
EP 07724120 A 20070410

Priority
• EP 2007003179 W 20070410
• DE 102006016773 A 20060410

Abstract (en)
[origin: WO2007118639A1] The invention relates to composites composed of an elastic carrier medium composed of polynorbornene (PNR) and magnetizable particles which are polarized reversibly in a magnetic field. For instance, the mechanical properties, for example storage modulus G' (describes the elastic behavior and the energy storage) and loss modulus G'' (describes the viscosity behavior and the energy dissipation), of such elastomer composites can be enhanced rapidly and reversibly within wide limits (up to about two orders of magnitude) as a function of an external magnetic field. This gives rise to wide-ranging possible uses, for example for adaptive damping systems in which the damping power can be adjusted via the strength of the magnetic field.

IPC 8 full level
C08K 3/00 (2006.01); **C08L 45/00** (2006.01); **F16F 1/36** (2006.01)

CPC (source: EP US)
C08J 5/10 (2013.01 - EP US); **C08K 3/01** (2017.12 - EP US); **F16F 1/361** (2013.01 - EP US); **C08J 2345/00** (2013.01 - EP US)

Citation (search report)
See references of WO 2007118639A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK RS

DOCDB simple family (publication)
DE 102006016773 A1 20071011; EP 2010598 A1 20090107; US 2009173908 A1 20090709; US 8123971 B2 20120228; WO 2007118639 A1 20071025

DOCDB simple family (application)
DE 102006016773 A 20060410; EP 07724120 A 20070410; EP 2007003179 W 20070410; US 29648607 A 20070410