

(12) International Application Status Report

Received at International Bureau: 07 December 2019 (07.12.2019)

Information valid as of: 18 May 2020 (18.05.2020)

Report generated on: 20 September 2020 (20.09.2020)

(10) Publication number:

WO2020/109247

(43) Publication date:

04 June 2020 (04.06.2020)

(26) Publication language:

English (EN)

(21) Application Number:

PCT/EP2019/082458

(22) Filing Date:

25 November 2019 (25.11.2019)

(25) Filing language:

English (EN)

(31) Priority number(s):

62/771,224 (US)

(31) Priority date(s):

26 November 2018 (26.11.2018)

(31) Priority status:

Priority document received (in compliance with PCT Rule 17.1)

(51) International Patent Classification:

D06M 11/73 (2006.01); **D06M 11/76** (2006.01); **D06M 15/41** (2006.01); **B32B 5/02** (2006.01); **B64B 1/58** (2006.01)

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(54) Title (EN): GRAPHENE-OXIDE GRAFTED PBO (ZYLON®) FIBERS; METHOD FOR PRODUCTION AND APPLICATIONS TO AIRSHIP HULLS AND LIGHTER THAN AIR VEHICLES

(54) Title (FR): FIBRES DE PBO GREFFÉES À BASE D'OXYDE DE GRAPHÈNE (ZYLON®) ; PROCÉDÉ DE PRODUCTION ET APPLICATIONS À DES COQUES DE DIRIGEABLE ET À DES VÉHICULES PLUS LÉGERS QUE L'AIR

(57) Abstract:

(EN): In a method for producing a PBO fiber with increased resistance against UV-caused degradation, a coating is provided on the PBO fibers, wherein the coating comprises graphene oxide cross-linked by polymerization with glutaraldehyde and resorcinol. The fibers are useful for lighter than air vehicles.

(FR): Dans un procédé de production d'une fibre PBO présentant une résistance accrue contre la dégradation provoquée par les UV, un revêtement est disposé sur les fibres PBO, le revêtement comprenant de l'oxyde de graphène réticulé par polymérisation avec du glutaraldéhyde et du résorcinol. Les fibres sont utiles pour des véhicules plus légers que l'air.

International search report:

Received at International Bureau: 27 February 2020 (27.02.2020) [EP]

International Report on Patentability (IPRP) Chapter II of the PCT:

Not available

(81) Designated States:

AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA,

PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

European Patent Office (EPO) : AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR

African Intellectual Property Organization (OAPI) : BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG

African Regional Intellectual Property Organization (ARIPO) : BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW

Eurasian Patent Organization (EAPO) : AM, AZ, BY, KG, KZ, RU, TJ, TM