

(12) International Application Status Report

Received at International Bureau: 10 October 2018 (10.10.2018)

Information valid as of: 26 November 2018 (26.11.2018)

Report generated on: 22 July 2019 (22.07.2019)

(10) Publication number:

WO2019/065910

(43) Publication date:

04 April 2019 (04.04.2019)

(26) Publication language:

Japanese (JA)

(21) Application Number:

PCT/JP2018/036117

(22) Filing Date:

27 September 2018 (27.09.2018)

(25) Filing language:

Japanese (JA)

(31) Priority number(s):

2017-189154 (JP)

(31) Priority date(s):

28 September 2017 (28.09.2017)

(31) Priority status:

Priority document received (in compliance with PCT Rule 17.1)

(51) International Patent Classification:

C01B 32/158 (2017.01); **B82Y 30/00** (2011.01); **B82Y 40/00** (2011.01); **C01B 32/00** (2017.01); **C01B 32/159** (2017.01)

(71) Applicant(s):

ZEON CORPORATION [JP/JP]; 6-2, Marunouchi 1-chome, Chiyoda-ku Tokyo 1008246 (JP) (for all designated states)

(72) Inventor(s):

YAMAGISHI Tomoko; c/o ZEON CORPORATION, 6-2, Marunouchi 1-chome, Chiyoda-ku Tokyo 1008246 (JP)

UEJIMA Mitsugu; c/o ZEON CORPORATION, 6-2, Marunouchi 1-chome, Chiyoda-ku Tokyo 1008246 (JP)

(74) Agent(s):

SUGIMURA Kenji; 36F, Kasumigaseki Common Gate West, 3-2-1, Kasumigaseki, Chiyoda-ku Tokyo 1000013 (JP)

(54) Title (EN): CARBON SHEET

(54) Title (FR): FEUILLE DE CARBONE

(54) Title (JA): 炭素シート

(57) Abstract:

(EN): The purpose of the present invention is to provide a material which is excellent in terms of handleability and processability and which, when used as a support for a different material, enables the different material to be fixed even to inner portions thereof. The carbon sheet of the present invention is characterized by including carbon nanotubes and having a porosity of 5-90%. It is preferable that the carbon sheet of the present invention comprise a porous base constituted of carbon and the carbon nanotubes adherent to the porous base. The carbon nanotubes included in the carbon sheet are preferably single-layer carbon nanotubes. It is preferable that the carbon nanotubes included in the carbon sheet have a nitrogen-adsorption specific surface area of 600 m²/g or greater.

(FR): Le but de la présente invention est de fournir un matériau qui est excellent en termes de maniabilité et d'usinabilité et qui, lorsqu'il est utilisé en tant que support pour un matériau différent, permet au matériau différent d'être fixé même à des parties internes de celui-ci. La feuille de carbone de la présente invention est caractérisée en ce qu'elle comprend des nanotubes de carbone et qu'elle a une porosité de 5 à 90 %. Il est préférable que la feuille de carbone de la présente invention comprenne une base poreuse constituée de carbone et des nanotubes de carbone adhérant à la base poreuse. Les nanotubes de carbone inclus dans la feuille de carbone sont de préférence des nanotubes de carbone monocouche. Il est préférable que les nanotubes de carbone inclus dans la feuille de carbone aient une surface spécifique d'adsorption d'azote de 600 m²/g ou plus.

(JA): 本発明は、取り扱い性および加工性に優れると共に、異種材料の担体として使用した際に異種材料を内部まで担持することができる材料を提供することを目的とする。本発明の炭素シートは、カーボンナノチューブを含み、空隙率が5%以上90%以下であることを特徴とする。また、本発明の炭素シートは、炭素製の多孔質基材と、前記多孔質基材に付着した前記カーボンナノチューブとを備えることが好ましい。炭素シートに含まれるカーボンナノチューブは、単層カーボンナノチューブであることが好ましい。また、炭素シートに含まれるカーボンナノチューブは、窒素吸着比表面積が600 m²/g以上であることが好ましい。

International search report:

Received at International Bureau: 26 November 2018 (26.11.2018) [JP]

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