

(12) International Application Status Report

Received at International Bureau: 08 August 2018 (08.08.2018)

Information valid as of: 23 January 2019 (23.01.2019)

Report generated on: 16 July 2019 (16.07.2019)

(10) Publication number:

WO2019/031263

(43) Publication date:

14 February 2019 (14.02.2019)

(26) Publication language:

Japanese (JA)

(21) Application Number:

PCT/JP2018/028077

(22) Filing Date:

26 July 2018 (26.07.2018)

(25) Filing language:

Japanese (JA)

(31) Priority number(s):

2017-155059 (JP)

(31) Priority date(s):

10 August 2017 (10.08.2017)

(31) Priority status:

Priority document received (in compliance with PCT Rule 17.1)

(51) International Patent Classification:

B32B 9/00 (2006.01); **C23C 14/08** (2006.01)

(71) Applicant(s):

TOYOBO CO., LTD. [JP/JP]; 2-8, Dojima Hama 2-chome, Kita-ku, Osaka-shi, Osaka 5308230 (JP) *(for all designated states)*

(72) Inventor(s):

KASHIWA, Mitsuhiro; c/o TOYOBO CO., LTD. 1-1, Katata 2-chome, Otsu-shi, Shiga 5200292 (JP)

NUMATA, Hiroyuki; c/o TOYOBO CO., LTD. 1-1, Katata 2-chome, Otsu-shi, Shiga 5200292 (JP)

ISEKI, Kiyoshi; c/o TOYOBO CO., LTD. 1-1, Katata 2-chome, Otsu-shi, Shiga 5200292 (JP)

(54) Title (EN): GAS BARRIER LAMINATE

(54) Title (FR): STRATIFIÉ DOTÉ DE PROPRIÉTÉS BARRIÈRE AU GAZ

(54) Title (JA): ガスバリア性積層体

(57) Abstract:

(EN): The problem addressed by the present invention is to provide a gas barrier film with excellent acid resistance, transparency, and gas barrier properties. This gas barrier laminate is formed by laminating an inorganic thin-film layer on at least one surface of a polymer substrate. Said inorganic thin-film layer primarily contains Al and Si, and after treatment involving immersion in a 1 mol/L hydrochloric acid aqueous solution for one hour, the ratio of Al content before and after said treatment satisfies the expression $(\text{Al content after treatment})/(\text{Al content before treatment}) \times 100 \geq 75$.

(FR): L'invention a pour objet de fournir un film barrière au gaz doté d'excellentes propriétés de résistance à l'acide, de transparence et de barrière au gaz. Plus précisément, l'invention concerne un stratifié doté de propriétés barrière au gaz tel qu'une couche mince inorganique est stratifiée sur au moins une face d'un matériau de base macromoléculaire. Cette couche mince inorganique contient essentiellement un Al et un Si, et présente un rapport de teneur en Al avant et après traitement satisfaisant la formule $(\text{teneur en Al après traitement}) / (\text{teneur en Al avant traitement}) \times 100 \geq 75$, lorsque est effectué un traitement d'immersion pendant une heure dans une solution aqueuse d'acide chlorhydrique à #####.

(JA): 発明が解決しようとする課題は、耐酸性、透明性、ガスバリア性に優れたガスバリアフィルムを提供することである。本発明のガスバリア性積層体は、高分子基材の少なくとも一方の面に無機薄膜層を積層した積層体であり、該無機薄膜層は、主としてAlとSiを含み、かつ1mol/Lの塩酸水溶液に1時間浸漬する処理を行った時の、処理前後のAl含有量の比が(処理後のAl含有量)/(処理前のAl含有量) $\times 100 \geq 75$ の式を満たす。

International search report:

Received at International Bureau: 24 September 2018 (24.09.2018) [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