

(12) International Application Status Report

Received at International Bureau: 10 October 2018 (10.10.2018)

Information valid as of: 13 November 2018 (13.11.2018)

Report generated on: 17 July 2019 (17.07.2019)

(10) Publication number:

WO2019/065887

(43) Publication date:

04 April 2019 (04.04.2019)

(26) Publication language:

Japanese (JA)

(21) Application Number:

PCT/JP2018/036054

(22) Filing Date:

27 September 2018 (27.09.2018)

(25) Filing language:

Japanese (JA)

(31) Priority number(s):

2017-191189 (JP)

(31) Priority date(s):

29 September 2017 (29.09.2017)

(31) Priority status:

Priority document received (in compliance with PCT Rule 17.1)

(51) International Patent Classification:

C09K 11/61 (2006.01); **C09K 11/08** (2006.01); **C09K 11/64** (2006.01); **C09K 11/66** (2006.01); **C09K 11/67** (2006.01); **H01L 33/50** (2010.01)

(71) Applicant(s):

DENKA COMPANY LIMITED [JP/JP]; 1-1,Nihonbashi-Muromachi 2-Chome,Chuo-ku, Tokyo 1038338 (JP) (for all designated states)

(72) Inventor(s):

KOBAYASHI,Manabu; c/o Denka Company Limited,Omuta Plant,1,Shinkai-machi,Omuta-city, Fukuoka 8368510 (JP)
ICHIKAWA,Masayoshi; c/o Denka Company Limited,Omuta Plant,1,Shinkai-machi,Omuta-city, Fukuoka 8368510 (JP)
KUNITOMO,Osamu; c/o Denka Company Limited,Omuta Plant,1,Shinkai-machi,Omuta-city, Fukuoka 8368510 (JP)

(74) Agent(s):

AXIS PATENT INTERNATIONAL; Shimbashi i-mark Bldg., 6-2 Shimbashi 2-Chome,Minato-ku, Tokyo 1050004 (JP)

(54) Title (EN): SURFACE-TREATED FLUORESCENT SUBSTANCE, PRODUCTION METHOD THEREFOR, AND LIGHT-EMITTING DEVICE

(54) Title (FR): CORPS FLUORESCENT TRAITÉ EN SURFACE AINSI QUE PROCÉDÉ DE FABRICATION DE CELUI-CI, ET DISPOSITIF LUMINESCENT

(54) Title (JA): 表面処理蛍光体及びその製造方法、並びに発光装置

(57) Abstract:

(EN): A method for producing a surface-treated fluorescent substance, the method comprising a step in which a fluorescent substance having a composition represented by formula (1) is subjected to a surface treatment with an alkoxysilane represented by formula (2). $K_2MF_6:Mn^{4+}$ (1) (In formula (1), M is one or more elements selected from the group consisting of Si, Ge, Ti, Sn, Zr, and Hf.) $R^1Si(OR^2)_3$ (2) (In formula (2), R^1 is a C_{6-12} (un)substituted monovalent hydrocarbon group and R^2 is an unsubstituted monovalent hydrocarbon group.)

(FR): L'invention concerne un procédé de fabrication de corps fluorescent traité en surface qui inclut une étape au cours de laquelle un corps fluorescent de composition représentée par la formule (1), est traité en surface au moyen d'un alkoxysilane représenté par la formule (2). $\#_2\#_6:\#^{4+} \### (\#)$ (Dans la formule (1), l'élément M représente au moins une sorte d'élément choisie dans un groupe constitué de Si, Ge, Ti, Sn, Zr et Hf.) $\#^1\###(\#^2)_3 \### (\#)$ (Dans la formule (2), $\#^1$ représente un groupe hydrocarbure monovalent substitué ou non substitué de 6 à 12 atomes de carbone, et $\#^2$ représente un groupe hydrocarbure monovalent non substitué.)

(JA): 組成が下記式(1)で表される蛍光体を、下記式(2)で表されるアルコキシシランにて表面処理する工程を含む表面処理蛍光体の製造方法である。 $K_2MF_6:Mn^{4+} \cdots$ (1)(式中、元素MはSi、Ge、Ti、Sn、Zr

及びH f からの群から選ばれる1種以上の元素である。) $R^1Si(OR^2)_3 \cdots$ (2)(式中、 R^1 は炭素数が6
~ 12の置換又は非置換の一価炭化水素基、 R^2 は非置換の一価炭化水素基である。)

International search report:

Received at International Bureau: 12 November 2018 (12.11.2018) [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