

(12) International Application Status Report

Received at International Bureau: 18 July 2018 (18.07.2018)

Information valid as of: 01 October 2018 (01.10.2018)

Report generated on: 25 March 2019 (25.03.2019)

(10) Publication number:

WO2019/009301

(43) Publication date:

10 January 2019 (10.01.2019)

(26) Publication language:

Japanese (JA)

(21) Application Number:

PCT/JP2018/025253

(22) Filing Date:

03 July 2018 (03.07.2018)

(25) Filing language:

Japanese (JA)

(31) Priority number(s):

2017-131809 (JP)

(31) Priority date(s):

05 July 2017 (05.07.2017)

(31) Priority status:

Priority document received (in compliance with PCT Rule 17.1)

(51) International Patent Classification:

C04B 35/462 (2006.01); **B01J 20/10** (2006.01); **B01J 20/28** (2006.01); **B01J 20/30** (2006.01); **B28B 3/20** (2006.01); **C01B 33/20** (2006.01); **C04B 35/499** (2006.01); **G21F 9/12** (2006.01)

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(54) Title (EN): SILICOTITANATE MOLDED BODY, METHOD FOR PRODUCING SAME, CESIUM AND/OR STRONTIUM ADSORBENT CONTAINING SILICOTITANATE MOLDED BODY, AND DECONTAMINATION METHOD FOR RADIOACTIVE WASTE LIQUID USING SAID ADSORBENT

(54) Title (FR): CORPS MOULÉ DE SILICOTITANATE AINSI QUE PROCÉDÉ DE FABRICATION DE CELUI-CI, AGENT D'ABSORPTION DE CÉSIUM ET/OU STRONTIUM CONTENANT CE CORPS MOULÉ DE SILICOTITANATE, ET PROCÉDÉ DE DÉCONTAMINATION D'EFFLUENTS RADIOACTIFS METTANT EN ŒUVRE CET AGENT D'ABSORPTION

(54) Title (JA): シリコチタネート成形体及びその製造方法、シリコチタネート成形体を含むセシウム及び / 又はストロンチウムの吸着剤、及び当該吸着剤を用いる放射性廃液の除染方法

(57) Abstract:

(EN): Provided are: a silicotitanate molded body which has high strength and generates little fine powder; a method for producing this silicotitanate molded body; an adsorbent which contains this silicotitanate molded body; and a decontamination method for radioactive cesium and/or radioactive strontium, which uses this adsorbent. A silicotitanate molded body that is characterized by containing crystalline silicotitanate particles which have a particle size distribution wherein 90% or more of particles on a volume basis have a particle diameter within the range of from 1 µm to 10 µm (inclusive), and which are represented by general formula $A_2Ti_2O_3(SiO_4)_n \cdot nH_2O$ (wherein A represents one or two alkali metal elements selected from among Na and K; and n represents a

number of 0-2), and an oxide of one or more elements that are selected from the group consisting of aluminum, zirconium, iron and cerium.

(FR): L'invention fournit un corps moulé de silicotitanate d'une grande résistance et peu susceptible de générer une fine poudre, un procédé de fabrication de ce corps moulé de silicotitanate, un agent d'absorption contenant ce corps moulé de silicotitanate, et un procédé de traitement de décontamination de césium radioactif et/ou strontium radioactif mettant en œuvre cet agent d'absorption. Plus précisément, l'invention concerne un corps moulé de silicotitanate qui est caractéristique en ce qu'il comprend : des particules de silicotitanate cristallin représentées par la formule générale $A_2Ti_2O_3(SiO_4)_n$ (Dans la formule, A représente une ou deux sortes d'élément métal alcalin choisie parmi Na et K, et n représente un nombre de 0 à 2.) qui présentent une distribution granulométrique telle que sur la base du volume le diamètre de 90% des particules ou plus est supérieur ou égal à μ et inférieur ou égal à 10μ ; et un oxyde d'au moins une sorte d'élément choisi dans un groupe constitué d'un aluminium, d'un zirconium, d'un fer et d'un cérium.

(JA): 強度が大きく、微粉の発生が少ないシリコチタネート成形体及びその製造方法、当該シリコチタネート成形体を含む吸着剤、並びに当該吸着剤を用いる放射性セシウム及び / 又は放射性ストロンチウムの除染処理方法を提供する。 体積基準で90%以上の粒子の粒径が1 μ m以上10 μ m以下の範囲である粒度分布を有する、一般式: $A_2Ti_2O_3(SiO_4)_n$ (式中、Aは、Na及びKから選ばれる1種又は2種のアルカリ金属元素を示す。nは0~2の数を示す。)で表される結晶性シリコチタネート粒子と、アルミニウム、ジルコニウム、鉄、及びセリウムからなる群より選ばれる1種以上の元素の酸化物と、を含有することを特徴とする、シリコチタネート成形体。

International search report:

Received at International Bureau: 01 October 2018 (01.10.2018) [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, 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