

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
16 June 2022 (16.06.2022)



(10) International Publication Number
WO 2022/124996 A1

(51) International Patent Classification:
C04B 28/10 (2006.01) C04B 20/10 (2006.01)
C04B 16/06 (2006.01)

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(21) International Application Number:
PCT/SG2021/050783

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(22) International Filing Date:
10 December 2021 (10.12.2021)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): 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, IT, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10202012380V 10 December 2020 (10.12.2020) SG

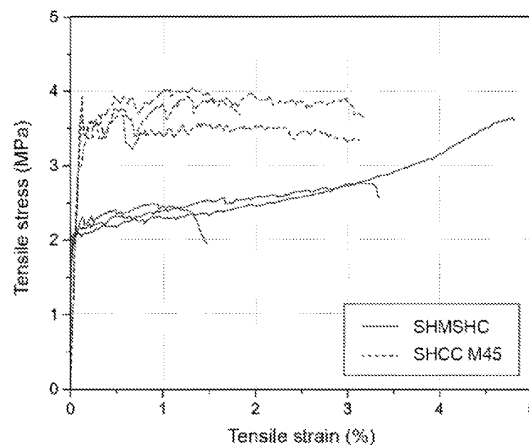
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(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

(54) Title: STRAIN HARDENING MAGNESIUM SILICATE HYDRATE COMPOSITES (SHMSHC)

FIG. 7



(57) Abstract: Herein disclosed is a strain hardening cement pre-mix that includes a reactive magnesium oxide cement, an amorphous silica source, and a fiber. Also, a strain hardening magnesium-silicate-hydrate composite formable from the strain hardening cement pre-mix is disclosed, which includes magnesium-silicate-hydrate, and a fiber dispersed therein. A method of forming the strain hardening cement pre-mix is further disclosed, the method includes mixing an amorphous silica source with a reactive magnesium oxide cement to form a dry mixture, and dispersing a fiber in the dry mixture. A method of forming the strain hardening magnesium-silicate-hydrate composite is further disclosed, the method includes mixing a reactive magnesium oxide cement with water, mixing an amorphous silica source to the reactive magnesium oxide cement and the water to form a mixture, dispersing a fiber in the mixture, and curing the mixture including the fiber to form the strain hardening magnesium-silicate-hydrate composite. No suitable figure to be published with abstract

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GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (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), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE