

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

(19) World Intellectual Property
Organization
International Bureau

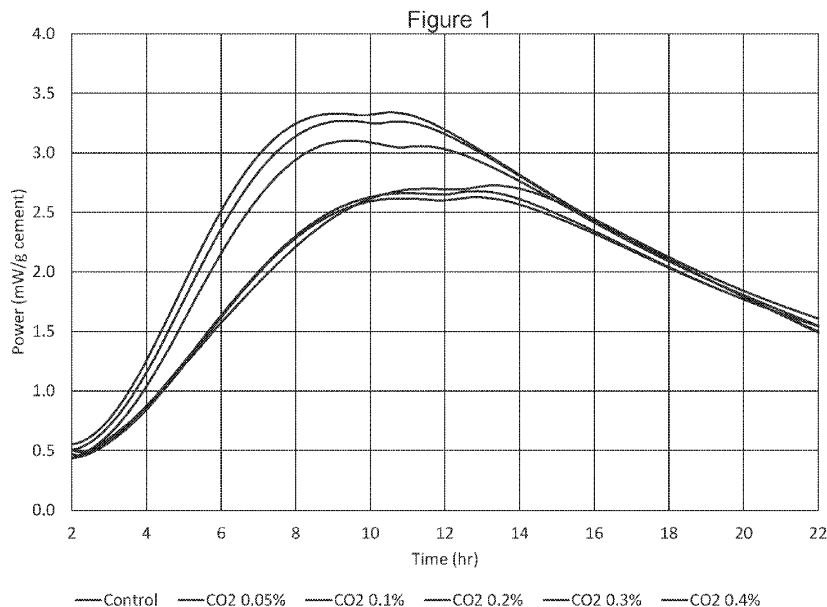
(43) International Publication Date
08 February 2024 (08.02.2024)



(10) International Publication Number
WO 2024/030519 A3

- (51) **International Patent Classification:**
C04B 40/02 (2006.01) *B01F 23/237* (2022.01)
- (21) **International Application Number:**
PCT/US2023/029354
- (22) **International Filing Date:**
02 August 2023 (02.08.2023)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/394,554 02 August 2022 (02.08.2022) US
- (71) **Applicant:** **CARBONCURE TECHNOLOGIES INC.** [CA/CA]; 42 Payzant Avenue, Dartmouth, Nova Scotia B3B 1Z6 (CA).
- (72) **Inventor; and**
(71) **Applicant:** **CAIL, Kevin** [US/US]; 42 Payzant Avenue, Dartmouth, Nova Scotia B3B 1Z6 (CA).
- (72) **Inventors:** **MONKMAN, George Sean**; 42 Payzant Avenue, Dartmouth, Nova Scotia B3B 1Z6 (CA). **SANDBERG, Paul J.**; 42 Payzant Avenue, Dartmouth, Nova Scotia B3B 1Z6 (CA). **HANMORE, Alex**; 42 Payzant Avenue, Dartmouth, Nova Scotia B3B 1Z6 (CA). **PRAUGHT, Diane**; 42 Payzant Avenue, Dartmouth, Nova Scotia B3B 1Z6 (CA).
- (74) **Agent:** **WITT, Eric** et al.; Storella & Witt, LLP, 2625 Alcatraz Avenue #197, Berkeley, California 94705 (US).
- (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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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.
- (84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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,

(54) **Title:** CONCRETE ADMIXTURES



(57) **Abstract:** Provided are methods and compositions utilizing one or more admixtures in combination with carbon dioxide in cement mixes, such as cement mixes comprising aggregates (concrete), for example carbon dioxide at a dose of 0.01 to 5% by weight cement and one or more admixtures.

[Continued on next page]

DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT,
LU, LV, MC, ME, 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).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:

14 March 2024 (14.03.2024)