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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
3 September 2015 (03.09.2015)

WIPO | PCT

(10) International Publication Number
WO 2015/130745 A1

(51) International Patent Classification:
C12N 5/00 (2006.01)

(21) International Application Number:
PCT/US2015/017451

(22) International Filing Date:
25 February 2015 (25.02.2015)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/944,787 26 February 2014 (26.02.2014) US
62/032,130 1 August 2014 (01.08.2014) US

(71) Applicant: **BRIGHAM AND WOMEN'S HOSPITAL, INC.** [US/US]; 75 Francis Street, Boston, MA 02115 (US).

(72) Inventors: **DEMIRCI, Utkan**; 103 Peter Coutts Circle, Stanford, CA 94305 (US). **TASOGLU, Savas**; Univ. of Connecticut, United Tech. Eng., Bldg., Rm 372, 191 Auditorium Rd., Storrs, CT 06269 (US).

(74) Agent: **ARK, Daniel, J.**; Quarles & Brady LLP, 411 E. Wisconsin Ave., Milwaukee, WI 53202 (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, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, 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.

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

(54) Title: SYSTEM AND METHOD FOR MAGNETIC SELF-ASSEMBLY

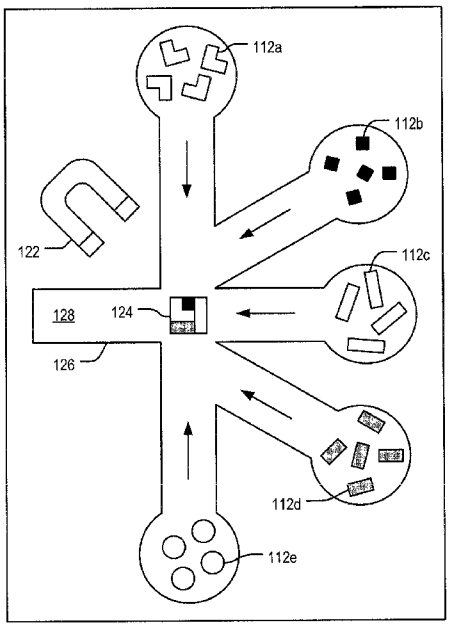


FIG. 1C

(57) Abstract: In one aspect, the present disclosure provides a method for self-assembly of magnetic building blocks, including distributing a plurality of building blocks in a liquid medium, each of the plurality of building blocks having a plurality of stable radicals, establishing a magnetic field interacting with at least a portion of the plurality of building blocks, guiding with the magnetic field the portion of the plurality of building blocks from a first location in the liquid medium to a second location in the liquid medium, assembling into a first construct the portion of the plurality of building blocks proximate the second location, and treating the first construct with at least one antioxidant to neutralize at least in part the plurality of stable radicals.

WO 2015/130745 A1