

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
09 April 2020 (09.04.2020)



(10) International Publication Number
WO 2020/072597 A1

(51) International Patent Classification:
B01J 19/16 (2006.01)

(21) International Application Number:
PCT/US2019/054230

(22) International Filing Date:
02 October 2019 (02.10.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/740,221 02 October 2018 (02.10.2018) US

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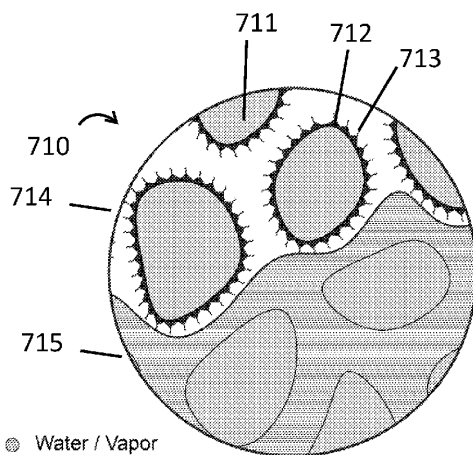
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(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, 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.

(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).

(54) Title: HYDROPHOBIC BARRIER LAYER FOR CERAMIC INDIRECT EVAPORATIVE COOLING SYSTEMS



- Water / Vapor
- Ceramic body
- ▲ Nano-roughness
- ⌋ Chemical modification

FIG. 7A

(57) Abstract: An evaporative cooling system includes a porous ceramic body with a plurality of dry channels and a plurality of wet channels. The plurality of dry channels are configured to inhibit transfer of water vapor into the dry channels and include a barrier layer that includes a roughened layer with a features size less than 1000 nm and a hydrophobic chemical modification disposed on the roughened layer. The plurality of wet channels are configured to allow transfer of water vapor.

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Published:

— *with international search report (Art. 21(3))*