



(51) **International Patent Classification:**
Not classified

(21) **International Application Number:**
PCT/SG2023/050246

(22) **International Filing Date:**
12 April 2023 (12.04.2023)

(25) **Filing Language:** English

(26) **Publication Language:** English

(30) **Priority Data:**
10202203772X 12 April 2022 (12.04.2022) SG

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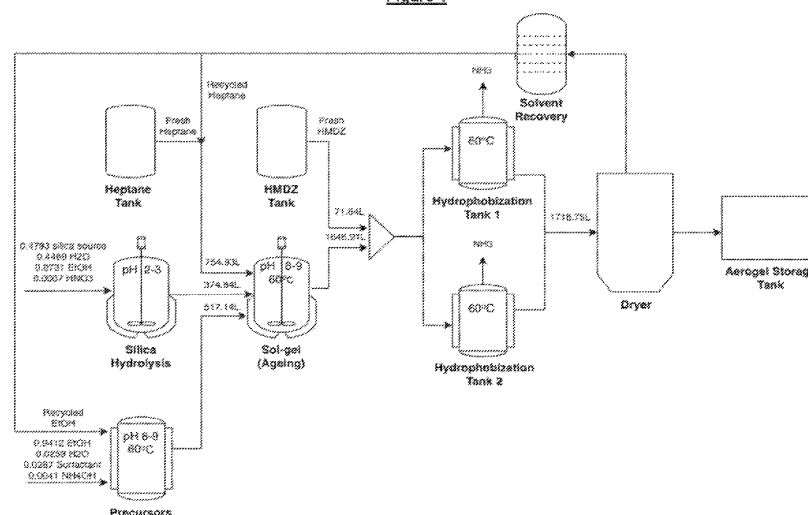
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, 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,

(54) **Title:** A METHOD OF FORMING AN AEROGEL MATERIAL

Figure 1



(57) Abstract: There is provided a method of making an alkoxy silicate-based aerogel material, the method comprising: hydrolysing an alkoxy silicate in a hydrolytic solvent to form a silica sol for a pre-determined period of time and at a pH of 1-4; mixing the silica sol with a basic solution to form a sol-gel; a first ageing the sol-gel; adding a surface-modifying agent to the sol-gel; a second ageing the sol-gel; and heating the sol-gel at a temperature of 120-250°C to form the alkoxy silicate-based aerogel material, wherein the alkoxy silicate-based aerogel material has a thermal conductivity of < 18 mW/mK. There is also provided an alkoxy silicate-based aerogel material formed from the method.

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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, 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).

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