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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
6 May 2016 (06.05.2016)

WIPO | PCT

(10) International Publication Number
WO 2016/066691 A1

(51) International Patent Classification:
B81C 1/00 (2006.01)

(21) International Application Number:
PCT/EP2015/074993

(22) International Filing Date:
28 October 2015 (28.10.2015)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
14/527,962 30 October 2014 (30.10.2014) US

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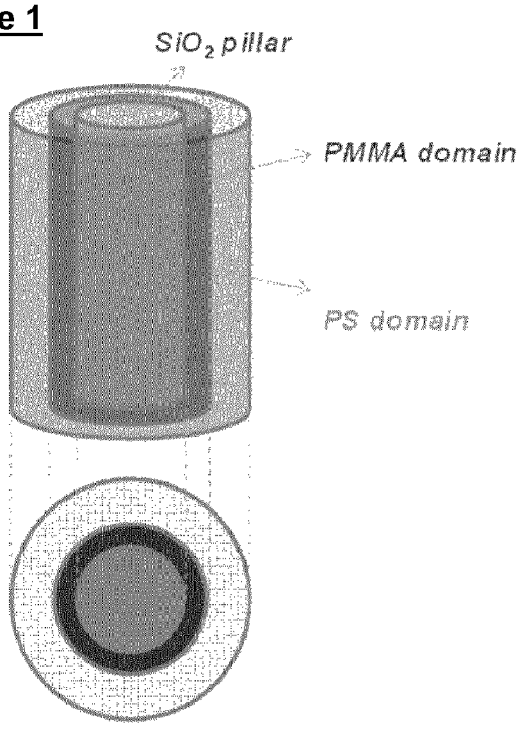
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP,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

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(54) Title: DEFECT REDUCTION METHODS AND COMPOSITION FOR VIA FORMATION IN DIRECTED SELF-ASSEMBLY PATTERNING

Figure 1



(57) Abstract: The present invention relates to a two novel processes, "Dual Coating Process and Single Coating Process," for forming an array of via's by employing a graphoepitaxy approach, where an array of pillars the surface of the pillars has been modified by the formation of a hydrophobic poly(vinyl aryl) brush at the surface of the pillars. The present invention also relates to a composition comprising a poly(vinyl aryl) hydrophopic polymer brush precursor terminated at one chain end with a reactive functional group, a diblock copolymer comprising an etch resistant hydrophobic block and a highly etchable hydrophilic block, a thermal acid generator and a solvent.

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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))*