



(51) International Patent Classification:

H01L 21/285 (2006.01) C23C 16/26 (2006.01)
H01L 21/768 (2006.01) C23C 16/50 (2006.01)

(21) International Application Number:

PCT/US2022/011061

(22) International Filing Date:

04 January 2022 (04.01.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

17/142,626 06 January 2021 (06.01.2021) 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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, 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, 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, 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: LOW TEMPERATURE GRAPHENE GROWTH

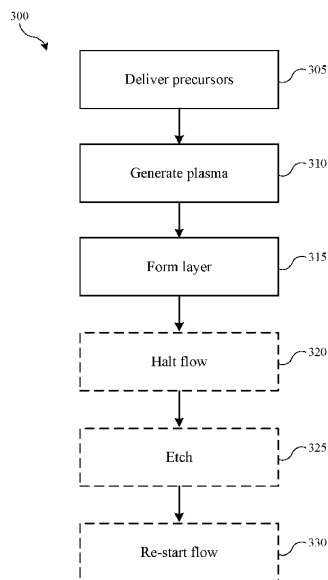


FIG. 3

(57) Abstract: Exemplary methods of semiconductor processing may include delivering a carbon-containing precursor and a hydrogen-containing precursor to a processing region of a semiconductor processing chamber. The methods may include generating a plasma of the carbon-containing precursor and the hydrogen-containing precursor within the processing region of the semiconductor processing chamber. The methods may include forming a layer of graphene on a substrate positioned within the processing region of the semiconductor processing chamber. The substrate may be maintained at a temperature below or about 600 °C. The methods may include halting flow of the carbon-containing precursor while maintaining the plasma with the hydrogen-containing precursor.

Published:

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