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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
14 December 2000 (14.12.2000)

PCT

(10) International Publication Number
WO 00/75975 A2

(51) International Patent Classification[7]: H01L 21/312, B05D 3/06

(21) International Application Number: PCT/US00/15637

(22) International Filing Date: 7 June 2000 (07.06.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/327,356 7 June 1999 (07.06.1999) US

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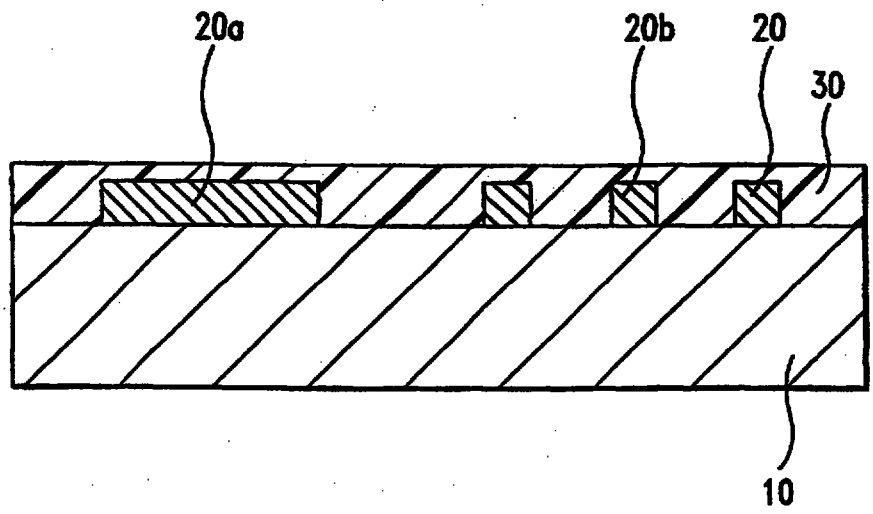
(81) Designated States *(national)*: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *Without international search report and to be republished upon receipt of that report.*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: LOW DIELECTRIC CONSTANT POLYORGANOSILICON COATINGS GENERATED FROM POLYCARBOSILANES



(57) Abstract: Polyorganosilicon dielectric coatings are prepared by subjecting specified polycarbosilanes to thermal or high energy treatments to generate cross-linked polyorganosilicon coatings having low k dielectric properties. The thermal process includes multi-step sequentially increasing temperature heating steps. The instantly prepared polyorganosilicon polymers can be employed as dielectric interconnect materials and film coatings for conductor wiring in semiconductor devices. These polyorganosilicon film coatings have the additional characteristics of relative thermal stability and excellent adhesion to substrate surfaces.

WO 00/75975 A2