

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
26 April 2001 (26.04.2001)

PCT

(10) International Publication Number
WO 01/29141 A1

(51) International Patent Classification⁷: C09D 183/08, C23C 16/40, C01B 33/113, B05D 7/24, H01L 21/316

(21) International Application Number: PCT/US00/28738

(22) International Filing Date: 18 October 2000 (18.10.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/420,052 18 October 1999 (18.10.1999) US

(71) Applicant: ALLIEDSIGNAL INC. [US/US]; 101 Columbia Avenue, P.O. Box 2245, Morristown, NJ 07960 (US).

(72) Inventor: HACKER, Nigel, P.; 991 Lincoln Avenue, Palo Alto, CA 94201 (US).

(74) Agents: CRISS, Roger, H. et al.; AlliedSignal Inc., 101 Columbia Avenue, P.O. Box 2245, Morristown, NJ 07960 (US).

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

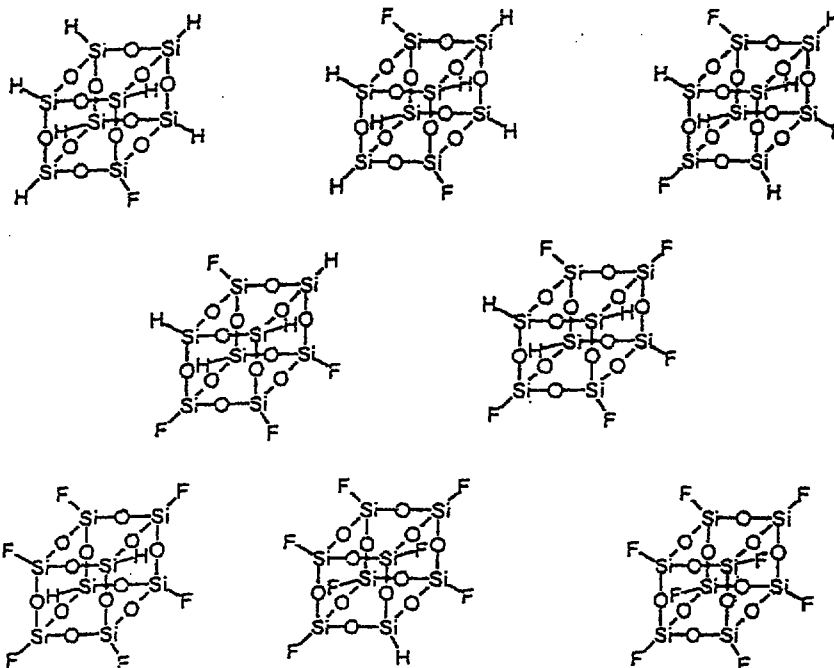
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR,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

Published:

- With international search report.
- Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

[Continued on next page]

(54) Title: DEPOSITION OF FLUOROSILSESQUIOXANE FILMS



(57) Abstract: There is provided an array of fluoro-substituted silsesquioxane thin film precursors having a structure wherein fluoro groups are bonded to the silicon atoms of a silsesquioxane cage. In the first aspect, the present invention provides a composition comprising a vaporized material having the formula $[F-SiO_{1.5}]_x[H-SiO_{1.5}]_y$, wherein $x + y = n$, n is an integer between 2 and 30, x is an integer between 1 and n and y is a whole number between 0 and n . Also provided are films made from these precursors and objects comprising these films.

WO 01/29141 A1



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.