

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶: C23C 14/06, H05H 1/02, 1/20, 1/24, C23C 16/00, B05D 5/12, B01J 3/06, B32B 3/00, 9/00	A1	(11) International Publication Number: WO 96/41034 (43) International Publication Date: 19 December 1996 (19.12.96)
(21) International Application Number: PCT/US96/08820 (22) International Filing Date: 5 June 1996 (05.06.96) (30) Priority Data: 08/483,848 7 June 1995 (07.06.95) US (71) Applicant: ADVANCED REFRACTORY TECHNOLOGIES, INC. [US/US]; 699 Hertel Avenue, Buffalo, NY 14207 (US). (72) Inventors: DORFMAN, Veniamin, F.; 24 Marwood Place, Stony Brook, NY 11790 (US). GOEL, Arvind; 156 Highgate Avenue, Buffalo, NY 14214 (US). (74) Agent: GOLDMAN, Michael, L.; Nixon, Hargrave, Devans & Doyle L.L.P., Clinton Square, P.O. Box 1051, Rochester, NY 14603 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MR , MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG , SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: ELECTRICALLY TUNABLE COATINGS (57) Abstract An electrically tunable coating and method for its fabrication and deposition comprising, as a coating on a substrate, a diamond-like nanocomposite solid-state material having interpenetrating atomic scale networks of carbon in a diamond-like carbon network stabilized by hydrogen, a glass-like silicon network stabilized by oxygen, and optionally at least one additional network of dopant elements or dopant compounds having elements from groups 1-7b and 8 of the periodic table.		