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<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top; padding: 5px;"> (21) International Application Number: PCT/US98/23890 (22) International Filing Date: 10 November 1998 (10.11.98) (30) Priority Data: 08/969,411 10 November 1997 (10.11.97) US (71) Applicant (for all designated States except US): THE REGENTS OF THE UNIVERSITY OF CALIFORNIA [US/US]; 22nd floor, 300 Lakeside Drive, Oakland, CA 94612 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): MONTCALM, Claude [-/US]; 4663 Gerrilyn Way #241, Livermore, CA 94550 (US). STEARNS, Daniel, G. [-/US]; 1641 Dallas Court, Los Altos, CA 94024 (US). VERNON, Stephen, P. [-/US]; 1134 Navalle Court, Pleasanton, CA 94566 (US). (74) Agent: GRZYBICKI, Daryl, S.; P.O. Box 808, L-703, Livermore, CA 94550 (US). </td> <td style="width: 50%; vertical-align: top; padding: 5px;"> (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, 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, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, 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 <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> </td> </tr> </table>			(21) International Application Number: PCT/US98/23890 (22) International Filing Date: 10 November 1998 (10.11.98) (30) Priority Data: 08/969,411 10 November 1997 (10.11.97) US (71) Applicant (for all designated States except US): THE REGENTS OF THE UNIVERSITY OF CALIFORNIA [US/US]; 22nd floor, 300 Lakeside Drive, Oakland, CA 94612 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): MONTCALM, Claude [-/US]; 4663 Gerrilyn Way #241, Livermore, CA 94550 (US). STEARNS, Daniel, G. [-/US]; 1641 Dallas Court, Los Altos, CA 94024 (US). VERNON, Stephen, P. [-/US]; 1134 Navalle Court, Pleasanton, CA 94566 (US). (74) Agent: GRZYBICKI, Daryl, S.; P.O. Box 808, L-703, Livermore, CA 94550 (US).	(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, 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, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, 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 <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
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(54) Title: PASSIVATING OVERCOAT BILAYER FOR MULTILAYER REFLECTIVE COATINGS FOR EXTREME ULTRAVIOLET LITHOGRAPHY				
(57) Abstract A passivating overcoat bilayer is used for multilayer reflective coatings for extreme ultraviolet (EUV) or soft x-ray applications to prevent oxidation and corrosion of the multilayer coating, thereby improving the EUV optical performance. The overcoat bilayer comprises a layer of silicon or beryllium underneath at least one top layer of an elemental or a compound material that resists oxidation and corrosion. Materials for the top layer include carbon, palladium, carbides, borides, nitrides, and oxides. The thicknesses of the two layers that make up the overcoat bilayer are optimized to produce the highest reflectance at the wavelength range of operation. Protective overcoat systems comprising three or more layers are also possible.				