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(21) International Application Number: PCT/US98/00092 (22) International Filing Date: 5 January 1998 (05.01.98) (30) Priority Data: 08/788,043 23 January 1997 (23.01.97) US (71) Applicant: SEMITOOL, INC. [US/US]; 655 W. Reserve Drive, Kalispell, MT 59901 (US). (72) Inventor: GRAHAM, Sandra, W.; 305 White Birch Lane, Kalispell, MT 59901 (US). (74) Agent: POLIT, Robert, B.; Rockey, Milnamow & Katz, Ltd., Two Prudential Plaza, Suite 4700, 180 North Stetson, Chicago, IL 60601 (US).	(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, 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, <u>SG</u> , SI, SK, SL, TJ, TM, TR, TT, UA, UG, 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, 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. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
(54) Title: METHOD FOR PASSIVATION OF A METALLIZATION LAYER (57) Abstract A semiconductor wafer subject to a metallization etching process includes postetching residue that is removed using a fluorine containing solution having a substantial amount of CO₂ dissolved therein. Alternatively, or in addition, a fluorine containing solution, or the like, that has been used to remove the residue is rinsed from the wafer using a solvent containing a substantial amount of O₃ dissolved therein. In each instance, pitting of the metallization layer is reduced. <pre> graph TD 10[Provide Semiconductor Wafer Having A Metallization Layer] --> 15[Etch Metallization Layer] 15 --> 20[Remove Post-Etching Residue Using Aqueous NH4F Solution of about 2 x 10^-1 Or Greater and with CO2 dissolved therein] 20 --> 25[Remove Solution From Wafer] </pre>		