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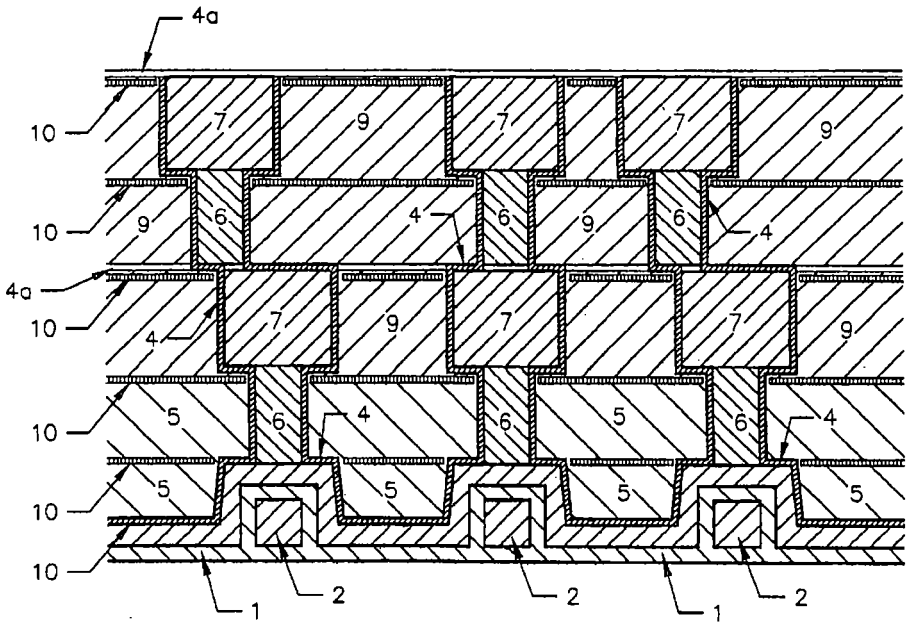
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(54) Title: METAL ION DIFFUSION BARRIER LAYERS



(57) Abstract: An integrated circuit comprising a subassembly of solid state devices formed into a substrate made of a semiconducting material. The devices within the subassembly are connected by metal wiring formed from conductive metals. A diffusion barrier layer of an alloy film having the composition of $Si_wC_xO_yH_z$ where w has a value of 10 to 33, preferably 18 to 20 atomic %, x has a value of 1 to 66, preferably 18 to 21 atomic percent, y has a value of 1 to 66, preferably 5 to 38 atomic % and z has a value of 0.1 to 60, preferably 25 to 32 atomic %; and w + x + y + z = 100 atomic % is formed on at least the metal wiring.

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ACTION

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, 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, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, 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, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

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