(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
5 October 2006 (05.10.2006)

PCT

(10) International Publication Number
WO 2006/105320 A1

(51) International Patent Classification:
H01L 21/768 (2006.01)

(21) International Application Number:
PCT/US2006/011695

(22) International Filing Date: 30 March 2006 (30.03.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

102005014751.8	31 March 2005 (31.03.2005)	DE
10205020061.3	29 April 2005 (29.04.2005)	DE
11/292,537	2 December 2005 (02.12.2005)	US

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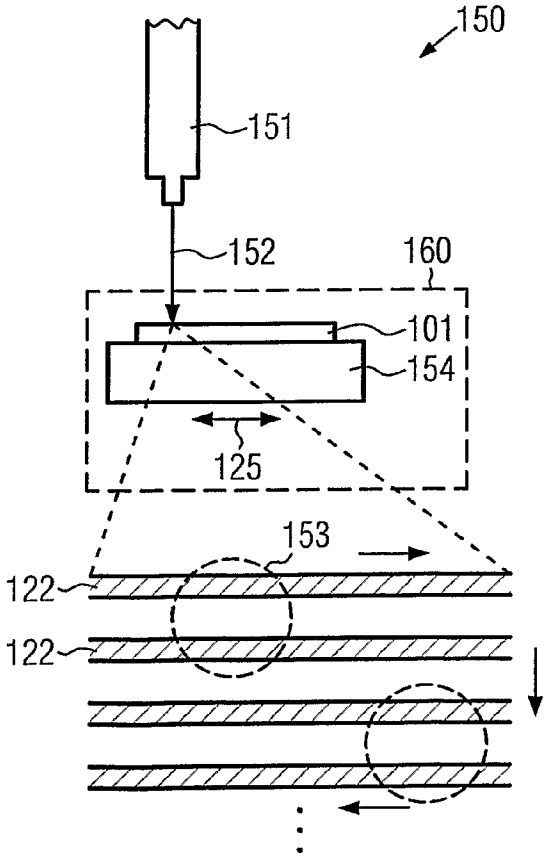
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(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH,

[Continued on next page]

(54) Title: HEAT TREATMENT FOR FORMING INTERCONNECT STRUCTURES WITH REDUCED ELECTRO AND STRESS MIGRATION AND/OR RESISTIVITY



(57) Abstract: By improving the purity of metal lines (112) and/or the crystalline structure, the overall performance of metal lines, especially of highly scaled copper-based semiconductor devices (100) , may be enhanced. The modification of the crystalline structure of the metal lines may be performed by a heat treatment generating locally restricted heating zones, which are scanned along the length direction of the metal lines (112) , and/or a heat treatment comprising a heating step in a vacuum ambient followed by a heating step in a reducing ambient.

WO 2006/105320 A1

GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, 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*

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