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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
9 October 2008 (09.10.2008)

PCT

(10) International Publication Number
WO 2008/120079 A2

(51) International Patent Classification: Not classified

(21) International Application Number:
PCT/IB2008/000747

(22) International Filing Date: 18 March 2008 (18.03.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0754135 29 March 2007 (29.03.2007) FR

(71) Applicant *(for all designated States except US)*: **S.O.I.TEC SILICON ON INSULATOR TECHNOLOGIES** [FR/FR]; Chemin Des Franques, Parc Technologique des Fontaines, F-38190 Bernin (FR).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **SCHWARZENBACH, Walter** [FR/FR]; 19, chemin du Mollard, F-38330 Saint Nazaire les Eymes (FR). **BEN MOHAMED, Nadia** [FR/FR]; 5 avenue Paul Eluard, F-38130 Echirolles (FR). **GUITTARD, Fleur** [FR/FR]; 168 route des Angonnes, Résidence les Asphodeles, F-38320 Brie et Angonnes (FR).

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

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:
— *of inventorship (Rule 4.17(iv))*

Published:
— *without international search report and to be republished upon receipt of that report*

(54) **Title:** IMPROVEMENT OF DEFECTIVITY OF POST THIN LAYER SEPARATION BY MODIFICATION OF ITS SEPARATION ANNEALING

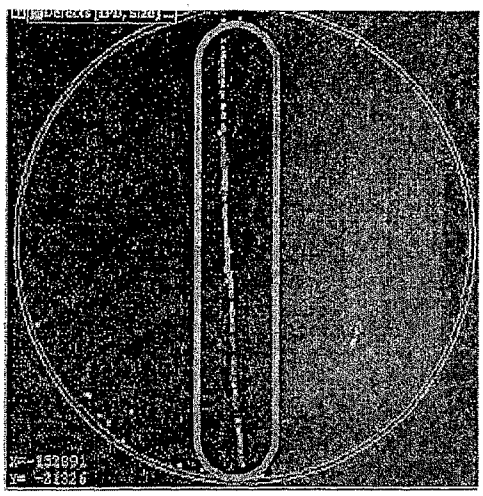


FIG.1a

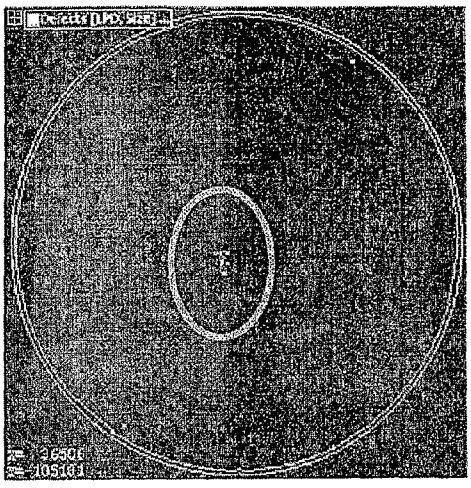


FIG.1b

(57) **Abstract:** The invention relates to a method of detaching two substrates at the embrittlement zone situated at a given depth of one of the two substrates, the method comprising a separation annealing step implemented in a furnace, said annealing comprising a first phase during which the temperature changes along an upgrade allowing a high temperature to be reached and annealing at this high temperature to be stabilized, a second phase during which the temperature changes along a downgrade, at the end of which the furnace is opened, then the substrates are unloaded from the furnace, characterized in that the second phase is regulated so as to minimize temperature inhomogeneities at the surface of the detached substrates when the furnace is opened.

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