



(51) International Patent Classification:

B23K 26/06 (2006.01) **G02B 27/09** (2006.01)
H01L 21/324 (2006.01)

(21) International Application Number:

PCT/EP2011/052498

(22) International Filing Date:

21 February 2011 (21.02.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10290098.2 26 February 2010 (26.02.2010) EP

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(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, CL, 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, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(54) Title: METHOD AND APPARATUS FOR IRRADIATING A SEMICONDUCTOR MATERIAL SURFACE BY LASER ENERGY

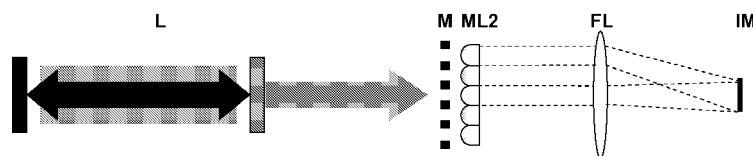


FIG 1

(57) Abstract: The present invention is related to an apparatus for irradiating semiconductor material comprising: - a laser generating a primary laser beam; - an optical system; - and a means for shaping the primary laser beam, comprising a plurality of apertures for shaping the primary laser beam into a plurality of secondary laser beams; characterized in that the shape and/or size of the individual apertures corresponds to the shape and/or size of a common region of a semiconductor material layer to be irradiated, and that the optical system is adapted for superposing the secondary laser beams to irradiate said common region. Further, the present invention is related to the use of such an apparatus in semiconductor device manufacturing.

