



- (51) **International Patent Classification:**
H01L 21/268 (2006.01) *H01L 21/324* (2006.01)
- (21) **International Application Number:**
PCT/US2012/059991
- (22) **International Filing Date:**
12 October 2012 (12.10.2012)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
61/555,938 4 November 2011 (04.11.2011) US
13/649,028 10 October 2012 (10.10.2012) US
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- (81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM,

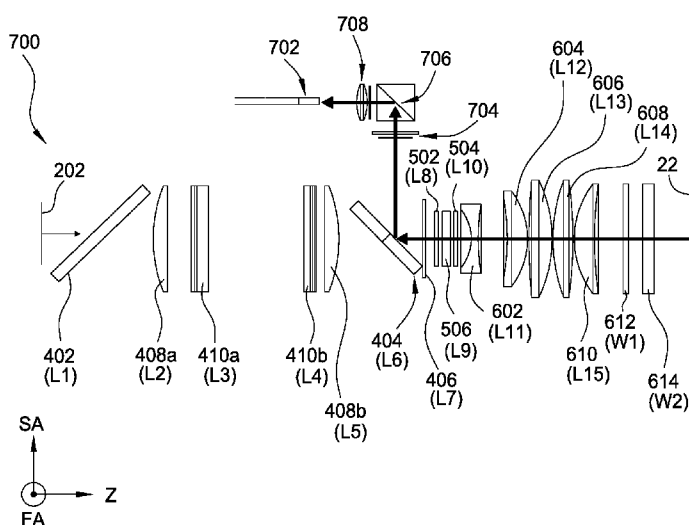
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- (84) **Designated States (unless otherwise indicated, for every kind of regional protection available):** ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, 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:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(54) **Title:** OPTICAL DESIGN FOR LINE GENERATION USING MICROLENS ARRAY



(57) **Abstract:** Embodiments of the invention provides an apparatus including a substrate support, a source of laser radiation emitting laser radiation along an optical path, and an illumination optics disposed along the optical path. The illumination optics includes a set of slow-axis and fast-axis lenses. The apparatus further includes a homogenizer disposed between of the illumination optics and the substrate support along the optical path. The homogenizer includes a first and a second micro-optic lenslet arrays of cylindrical lenses, wherein the second micro-optic lenslet array of cylindrical lenses has a relatively larger lenslet pitch than that of the first micro-optic lenslet array of cylindrical lenses, and lenslet axes of the first micro-optic lenslet array and lenslet axes of the second micro-optic lenslet array are oriented along an axis that is parallel to a fast axis of the source of laser radiation.

