



(51) International Patent Classification:
G02B 6/30 (2006.01) **G02B 6/32** (2006.01)

(21) International Application Number:
PCT/SG2011/000048

(22) International Filing Date:
2 February 2011 (02.02.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/301,817 5 February 2010 (05.02.2010) US

(71) Applicant (for all designated States except US): **AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH** [SG/SG]; 1 Fusionopolis Way #20-10, Connexis, Singapore 138632 (SG).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HO, Seng-Tiong** [US/SG]; c/o DSI Building, 5 Engineering Drive 1, Singapore 117608 (SG). **WANG, Qian** [CN/SG]; c/o DSI Building, 5 Engineering Drive 1, Singapore 117608 (SG). **HUANG, Yingyan** [CN/US]; c/o DSI Building, 5 Engineering Drive 1, Singapore 117608 (SG).

(74) Agent: **VIERING, JENTSCHURA & PARTNER LLP**; P.O. Box 1088, Rochor Post Office, Rochor Road, Singapore 911833 (SG).

(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:

— with international search report (Art. 21(3))

(54) Title: A LENS AND A METHOD OF FORMING THE SAME, A METHOD OF GENERATING A REFRACTIVE INDEX PROFILE FOR A LENS AND A PHOTONIC PACKAGE

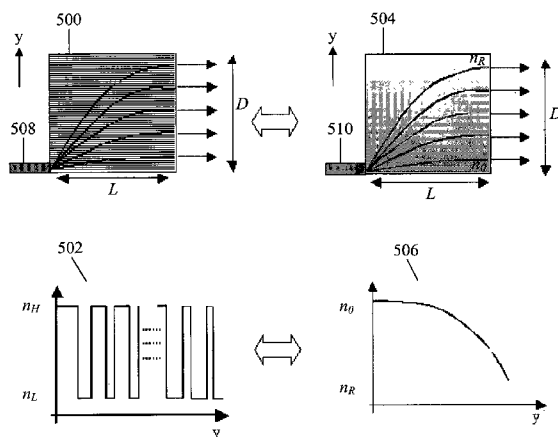


FIG. 5

(57) Abstract: According to embodiments of the present invention, a lens comprising a refractive index profile configured such that rays of light propagating in the lens form an at least substantially plane wavefront at an at least substantially vertical plane of the lens, is provided. The profile is configured to vary in an at least substantially bell curve shape along a radial direction of the lens. The lens includes a plurality of layers configured to generate the profile, wherein each layer of the plurality of layers comprises at least a first film and a second film arranged one above the other.