

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
17 July 2008 (17.07.2008)

PCT

(10) International Publication Number
WO 2008/083445 A8

(51) International Patent Classification:

G02F 1/05 (2006.01) G02F 1/37 (2006.01)
G02F 1/355 (2006.01)

(21) International Application Number:

PCT/AU2008/000029

(22) International Filing Date: 11 January 2008 (11.01.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

2007900150 12 January 2007 (12.01.2007) AU

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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, 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,

[Continued on next page]

(54) Title: OPTICAL ANALYSIS SYSTEM AND METHOD

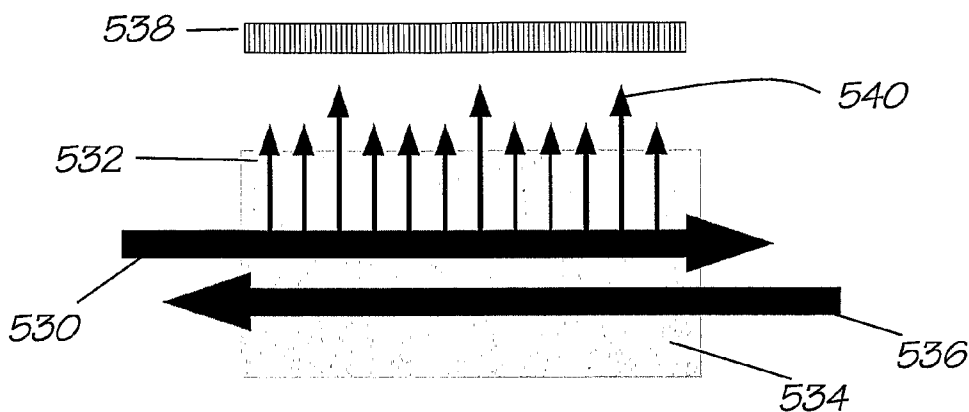


Figure 5

(57) Abstract: An optical system comprising: a nonlinear material having a ferroelectric domain structure, the nonlinear material capable of converting first and second optical signals respectively to first and second frequency-converted optical signals; and alignment means for respectively aligning the first and second optical signals such that they propagate collinearly, but in opposite directions, through the nonlinear medium to obtain an overlap region in the nonlinear material where the first and second optical signals overlap, wherein the nonlinear material being capable of converting the first and second optical signals to a third frequency converted optical signal in the overlap region; wherein the third optical frequency generated by the nonlinear material propagates in a direction that is either oblique or transverse to the propagation direction of both the first and second optical signals.

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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).

Published:

— *with international search report*

(48) Date of publication of this corrected version:

15 January 2009

(15) Information about Corrections:

see Notice of 15 January 2009

Previous Correction:

see Notice of 13 November 2008