



(51) International Patent Classification:

G01D 5/353 (2006.01) G01N 21/00 (2006.01)
G01D 5/26 (2006.01) G02B 6/00 (2006.01)
G01F 23/292 (2006.01)

(21) International Application Number:

PCT/US2010/022715

(22) International Filing Date:

1 February 2010 (01.02.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/148,564 30 January 2009 (30.01.2009) US

(72) Inventor; and

(71) Applicant : EGALON, Claudio Oliveira [US/US];
4117 Tivoli Avenue, Los Angeles, CA, 90066 (US).

(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, 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, MK, MT, NL, NO, PL, PT, RO, 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: SIDE ILLUMINATED MULTI POINT MULTI PARAMETER OPTICAL FIBER SENSOR

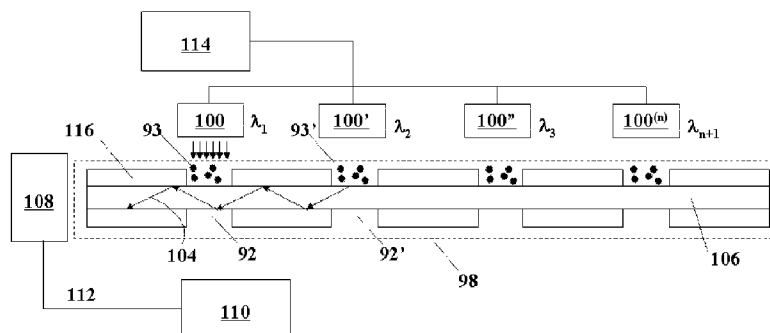


FIG. 9a.

(57) Abstract: A side illuminated multi point multi parameter optical fiber sensor that requires no sensitive coating is provided. This sensor comprises an optical fiber having at least one removed cladding section as the sensitive region, at least one probing light source that side illuminates the fiber, a power supply, a detector, a signal processor and a display. The sensitive optical fiber is optically affected by the presence of a measurand medium that can fluoresce, phosphoresce, absorb and/or scatter the probing light. This probing light is guided by the fiber core towards a detector which measures the light intensity and this light intensity is correlated with a measurand.