



(51) International Patent Classification:

G01N 21/59 (2006.01) G01N 33/49 (2006.01)
G01N 21/77 (2006.01) G01N 33/493 (2006.01)

(21) International Application Number:

PCT/SG2009/000271

(22) International Filing Date:

3 August 2009 (03.08.2009)

(25) Filing Language:

English

(26) Publication Language:

English

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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, 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:

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

(54) Title: A SENSOR ELEMENT

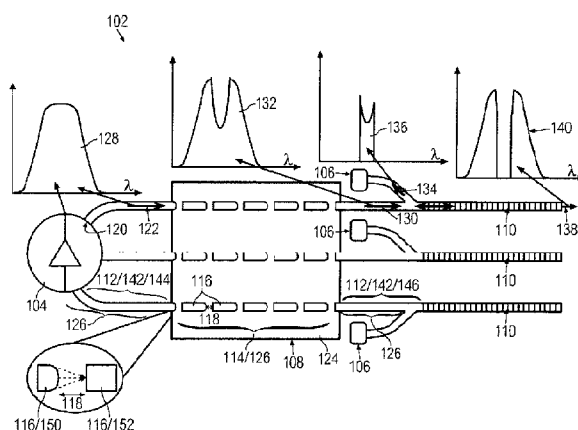


FIG. 1

(57) Abstract: The sensor element (102) includes a light input (120) configured to receive input light, a sample chamber (108) configured to accommodate a sample (124), and at least one polymer waveguide optically coupling the light input with the sample chamber, the at least one polymer waveguide (126) including a first contact portion (112) and a second contact portion (114), wherein at least a portion of the second contact portion may be arranged in the sample chamber. The second contact portion may include a different structure than the first contact portion so that a change of the light intensity of the input light passing through the second contact portion may be caused due to an interaction between the input light passing through the second contact portion and the sample, wherein the change of the light intensity of the input light passing through the second contact portion may be different from the change of the light intensity of the input light passing through the first contact portion.