

(51) International Patent Classification:
G01N 21/88 (2006.01) *H01L 21/66* (2006.01)(21) International Application Number:
PCT/US2011/046960(22) International Filing Date:
8 August 2011 (08.08.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
12/861,894 24 August 2010 (24.08.2010) US(71) Applicant (for all designated States except US): **KLA-TENCOR CORPORATION** [US/US]; KLA-Tencor Corporation, Legal Department, One Technology Drive, Milpitas, California 95035 (US).

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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, QA, 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:

— without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(54) Title: DEFECT INSPECTION AND PHOTOLUMINESCENCE MEASUREMENT SYSTEM

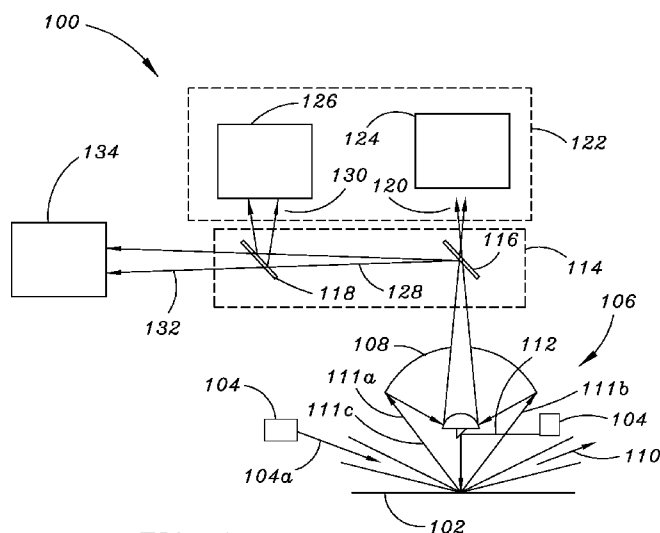


FIG. 1

(57) Abstract: A system for defect detection and photoluminescence measurement of a sample may include a radiation source configured to target radiation to the sample. The system may also include an optics assembly positioned above the sample to receive a sample radiation. The system may also include a filter module configured to receive the sample radiation collected by the optics assembly. The filter module may separate the sample radiation collected by the optics assembly into a first radiation portion and a second radiation portion. The system may also include a defect detection module configured to receive the first radiation portion from the filter module. The system may further include a photoluminescence measurement module configured to receive the second radiation portion from the filter module. The defect detection module and the photoluminescence measurement module may be configured to receive the respective first radiation portion and the second radiation portion substantially simultaneously.