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(71) Applicant: **KLA-TENCOR CORPORATION** [US/US]; Legal Department, One Technology Drive, Milpitas, California 95035 (US).

(72) Inventor: **SAPPEY, Romain**; 6770 Bret Harte Drive, San Jose, California 95120 (US).

(74) Agent: **MCANDREWS, Kevin**; Kla-Tencor Corp., Legal Department, One Technology Drive, Milpitas, California 95035 (US).

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(54) Title: SYSTEM AND METHOD FOR DEFECT DETECTION AND PHOTOLUMINESCENCE MEASUREMENT OF A SAMPLE

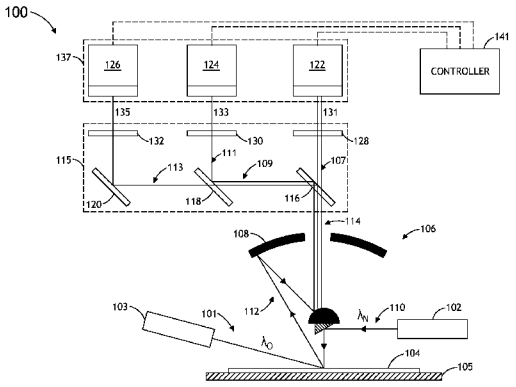


FIG.1A

(57) Abstract: Defect detection and photoluminescence measurement of a sample directing a beam of oblique-illumination wavelength light onto a portion of the sample, directing a beam of normal-illumination wavelength light for causing one or more photoluminescing defects of the sample to emit photoluminescent light onto a portion of the sample, collecting defect scattered radiation or photoluminescence radiation from the sample, separating the radiation from the sample into a first portion of radiation in the visible spectrum, a second portion of radiation including the normal-illumination wavelength light, and at least a third portion of radiation including the oblique-illumination wavelength light, measuring one or more characteristics of the first portion, the second portion or the third portion of radiation; detecting one or more photoluminescence defects or one or more scattering defects based on the measured one or more characteristics of the first portion, the second portion or the third portion of radiation.

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