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(71) Applicant *(for all designated States except US)*: **KLA-TENCOR CORPORATION** [US/US]; 1 Technology Drive, Milpitas, CA 95035 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BOEYKENS, Steven** [BE/BE]; Paul van Ostaijenlaan 37, B-3001 Heverlee (BE). **MARIVOET, Tom** [BE/BE]; Driewilgenstraat 49, B-3071 Erps-Kwerps (BE).

(74) Agent: **REICHERT, Werner**; Bismarckplatz 8, 93047 Regensburg (DE).

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(54) **Title**: METHOD AND APPARATUS FOR INSPECTION OF LIGHT EMITTING SEMICONDUCTOR DEVICES USING PHOTOLUMINESCENCE IMAGING

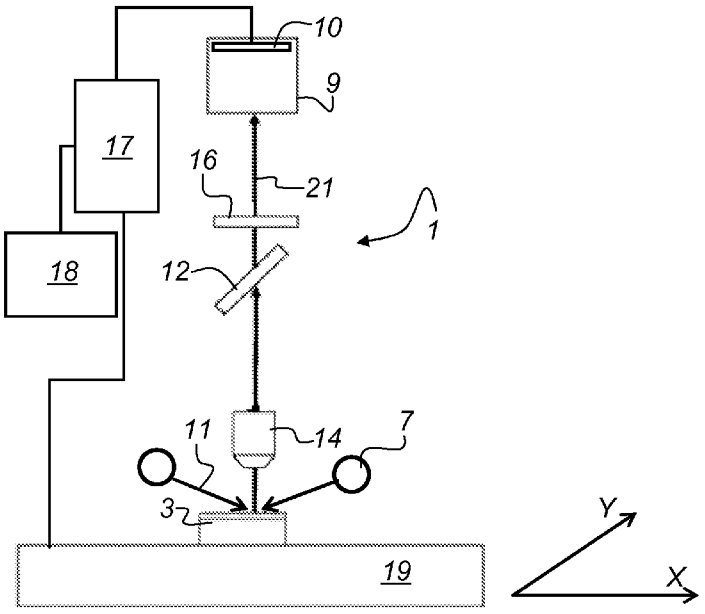


Fig. 4

(57) **Abstract**: A method and apparatus for the inspection of light emitting semiconductor devices. The semiconductor device is illuminated with a light source, wherein at least an area of the light emitting semiconductor is illuminated with a waveband of light. The waveband of light $\lambda_A + \lambda_B$ can generate electron-hole pairs in the light emitting semiconductor to be inspected. Through an objective lens at least a part of the light λ_C emitted by the light emitting semiconductor is detected. The emitted light is captured with a sensor of a camera that is sensitive to wavelengths of the emitted light, wherein the wavelength of the emitted light is above the width of the waveband. The data of the emitted light, captured with the sensor, are transmitted to a computer system for calculating inspection results of the light emitting semiconductor.

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