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(54) Title: OPTICAL DETECTION DEVICE, SYSTEM, AND METHOD FOR OMNIDIRECTIONAL PHOTODETECTION

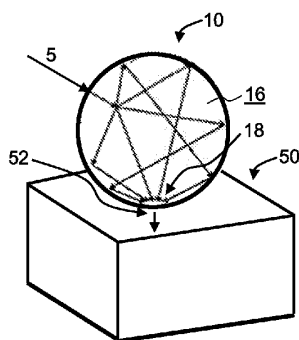


Figure 1B

(57) Abstract: Disclosed are optical detection device, system, and method which increase photodetection area and enables omnidirectional and self-aligning photodetection through the use of a fluorescent lens. An optical detection device comprises a fluorescent lens having a light collecting area being a spherical, hemispherical, or cylindrical surface of the fluorescent lens, and a light outcoupling area; and a fluorophore dispersed throughout the light collection area and the fluorescent lens, wherein the fluorophore is excitable by a light beam, which is incident at any position or angle in relation to the spherical surface, to produce a light emission, wherein the light outcoupling area is arranged to allow an extraction of the light emission from the fluorescent lens, wherein the light collecting area is larger than the light outcoupling area.

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