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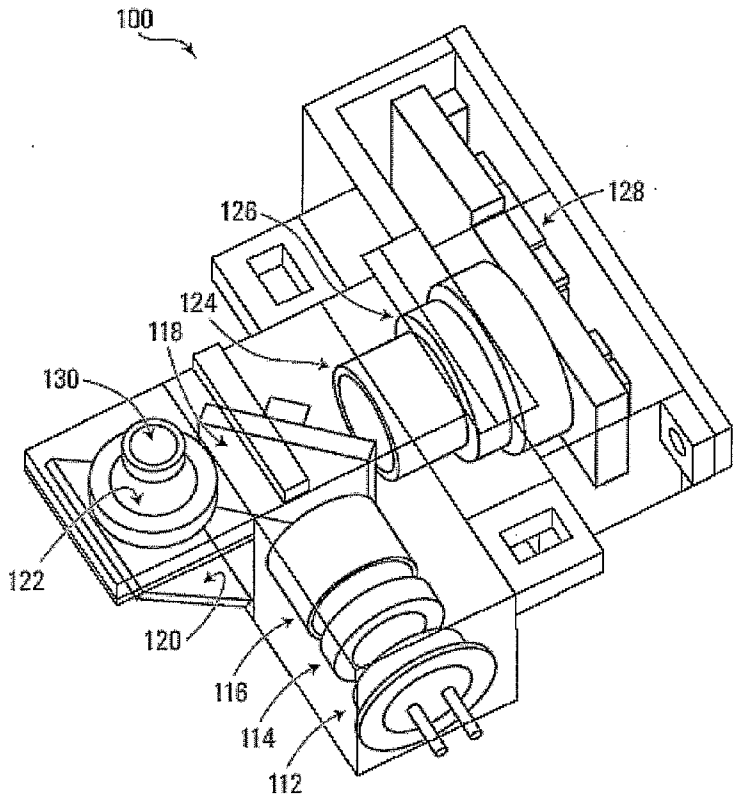
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[Continued on next page]

(54) Title: COMPACT OPTICAL DETECTION SYSTEM



(57) Abstract: A detection system is provided, the detection system comprising a light source that generates excitation light having a wavelength sufficient to excite a fluorophore in a sample; an excitation filter positioned along a first line along a path of the excitation light, the excitation filter transmitting the excitation light from the light source; a beam splitter positioned along the first line, the beam splitter reflecting the excitation light transmitted by the excitation filter along a second line toward a mirror positioned on one side of the beam splitter, and passing emitted light reflected along the second line; the mirror, positioned to reflect the excitation light from the beam splitter to the fluorophore in the sample along a third line, normal to both the first and second lines, wherein the mirror further reflects emitted light emitted along the third line, along the second line toward the beam splitter; an emission filter positioned along the second line, on a second side of the beam splitter; and a detector that detects the emitted light transmitted by the emission filter.

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PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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