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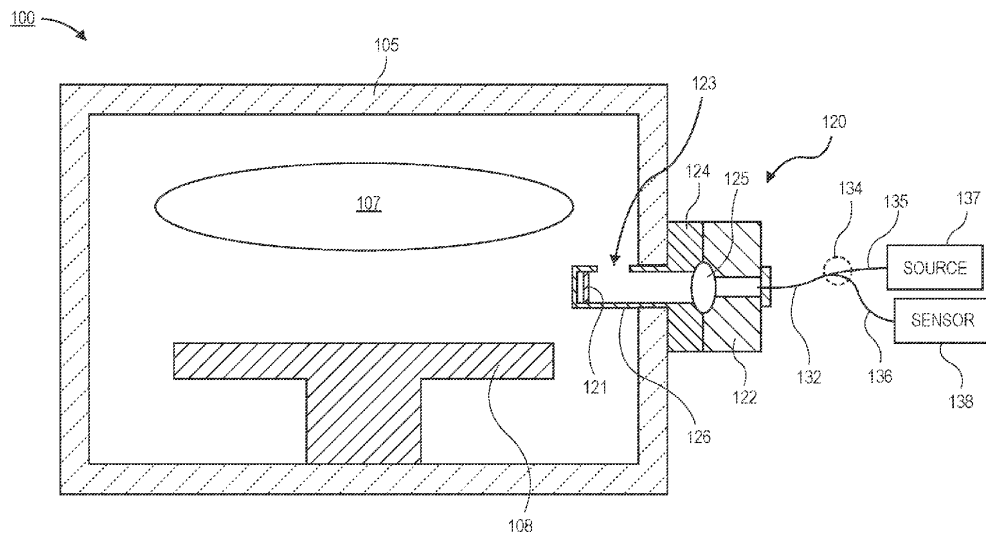


FIG. 1

(57) Abstract: Embodiments disclosed herein include optical sensor systems and methods of using such systems. In an embodiment, the optical sensor system comprises a housing and an optical path through the housing. In an embodiment, the optical path comprises a first end and a second end. In an embodiment a reflector is at the first end of the optical path, and a lens is between the reflector and the second end of the optical path. In an embodiment, the optical sensor further comprises an opening through the housing between the lens and the reflector.

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WO 2020/210115 A1

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