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(54) **SEMICONDUCTOR PHOTODETECTOR**

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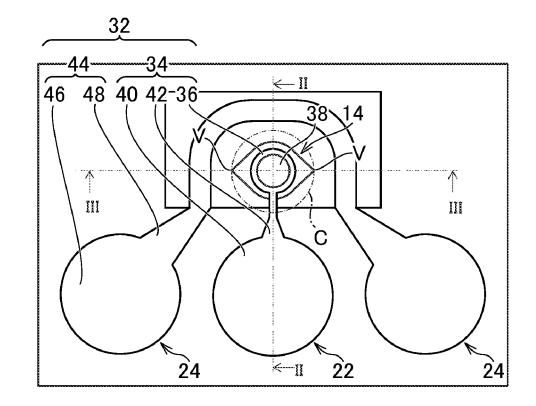
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(57)**ABSTRACT**

A semiconductor photodetector includes a substrate; a mesa structure on the substrate, the mesa structure being composed of some layers including an upper layer and a lower layer, the upper layer being an absorption layer of light, the lower layer being a wide bandgap layer with a bandgap wide enough not to absorb the light; and an insulating film covering a side of the mesa structure, each of the layers comprising single crystals of III-V semiconductors and having a top of a (100) plane, the top of the wide bandgap layer having a shape including a pair of vertices, in [0-11] and [01-1] directions, on a circumference of a minimum bounding circle.





 $[0-11] \longleftrightarrow D1 \longrightarrow [01-1]$