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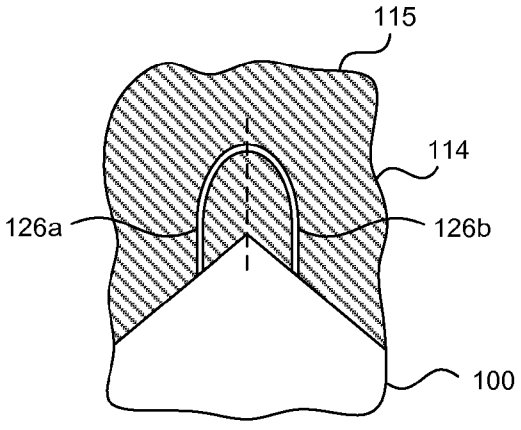


FIG. 4C

(57) Abstract: Solid state lighting devices and associated methods of manufacturing are disclosed herein. In one embodiment, a solid state light device includes a light emitting diode with an N- type gallium nitride (GaN) material, a P-type GaN material spaced apart from the N-type GaN material, and an indium gallium nitride (InGaN) material directly between the N-type GaN material and the P-type GaN material. At least one of the N-type GaN, InGaN, and P-type GaN materials has a non-planar surface.

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