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(71) Applicant *(for all designated States except US)*: **MICRON TECHNOLOGY, INC.** [US/US]; 8000 South Federal Way, P.o. Box 6, Boise, ID 83707-0006 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **RANA, Niraj** [IN/US]; 6263 S. Basalt Trail Place, Boise, ID 83716 (US). **REN, Zaiyuan** [CN/US]; 3308 S. Gekeler Lane, Apt. E101, Boise, ID 83706 (US).

(74) Agents: **LIANG, Chen** et al.; Perkins Coie LLP, P.O. Box 1247, Seattle, WA 98111-1247 (US).

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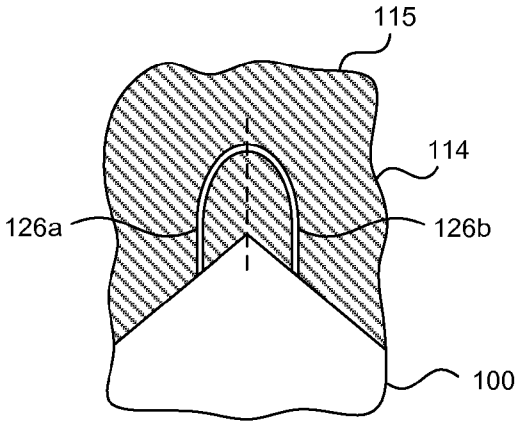


FIG. 4C

(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.

WO 2011/091016 A2