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(19) **United States**(12) **Patent Application Publication****Kopp et al.**(10) **Pub. No.: US 2023/0231080 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **RADIATION-EMITTING SEMICONDUCTOR CHIP**(71) Applicant: **OSRAM OLED GmbH**, Regensburg (DE)(72) Inventors: **Fabian Kopp**, Penang (MY); **Attila Molnar**, Penang (MY); **Bjoern Muermann**, Regensburg (DE); **Franz Eberhard**, Regensburg (DE)(21) Appl. No.: **18/186,037**(22) Filed: **Mar. 17, 2023****Related U.S. Application Data**

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(57)

ABSTRACT

In an embodiment a radiation-emitting semiconductor chip includes a semiconductor body having an active region configured to generate radiation, a first contact layer having a first contact area and a first contact finger structure connected to the first contact area, a second contact layer having a second contact area and a second contact finger structure connected to the second contact area, a current distribution layer electrically conductively connected to the first contact layer, a connection layer electrically conductively connected to the first contact layer via the current distribution layer and an insulation layer, wherein the insulation layer is arranged in places between the connection layer and the current distribution layer, wherein the insulation layer has at a plurality of openings, in which the connection layer and the current distribution layer adjoin one another, and wherein edge regions of the insulation layer includes more openings than a central region of the insulation layer.

