

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2023/0231032 A1 Escoffier et al.

Jul. 20, 2023 (43) Pub. Date:

(54) TRANSISTOR

(71) Applicant: Commissariat á l'Énergie Atomique et aux Énergies Alternatives, Paris (FR)

(72) Inventors: René Escoffier, Grenoble Cedex 9 (FR); Blend Mohamad, Grenoble

Cedex 9 (FR)

(73) Assignee: Commissariat á l'Énergie Atomique

et aux Énergies Alternatives, Paris

(21) Appl. No.: 18/010,443

(22) PCT Filed: Jun. 9, 2021

PCT/EP2021/065479 (86) PCT No.:

§ 371 (c)(1),

(2) Date: Dec. 14, 2022

(30)Foreign Application Priority Data

Jun. 16, 2020 (FR) FR2006259

Publication Classification

(51) Int. Cl. H01L 29/66 (2006.01)(2006.01)H01L 29/20 H01L 29/778 (2006.01)H01L 29/423 (2006.01)H01L 29/417 (2006.01)

(52) U.S. Cl.

CPC H01L 29/66462 (2013.01); H01L 29/2003 (2013.01); H01L 29/7786 (2013.01); H01L 29/4238 (2013.01); H01L 29/41766 (2013.01)

(57)ABSTRACT

A transistor including a gate region penetrating into a first gallium nitride layer, wherein a second electrically-conductive layer coats at least one of the sides of said gate region.

