

Title (en)  
FIELD-EFFECT TRANSISTOR WITH OPTIMISED PERFORMANCE AND GAIN

Title (de)  
FELDEFFEKTTRANSISTOR MIT OPTIMIERTER LEISTUNG UND VERSTÄRKUNG

Title (fr)  
TRANSISTOR A EFFET DE CHAMP A RENDEMENT ET GAIN OPTIMISE

Publication  
**EP 3369115 A1 20180905 (FR)**

Application  
**EP 16790546 A 20161027**

Priority  
• FR 1502296 A 20151030  
• EP 2016075971 W 20161027

Abstract (en)  
[origin: WO2017072249A1] The invention relates to a transistor which includes a stack of semiconductor materials including, in particular, a first sub-layer (16), carefully arranged and with a specific thickness, splitting the buffer layer (12) into two portions (12a; 12b) and including a third material (Mat3) so that the difference in the piezoelectric and spontaneous polarisation coefficients between the material of the buffer layer and the third material (Mat3) induces, at a first interface (17) between the first portion of the buffer layer (12a) and the first sub-layer (16), a first fixed surface electric charge generating an electrical field directed along the axis z so as to allow the two-dimensional gas (9) to be contained in the channel.

IPC 8 full level  
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Citation (search report)  
See references of WO 2017072249A1

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