

Title (en)

ELECTRO-OPTICAL DEVICES BASED ON THE VARIATION IN THE INDEX OR ABSORPTION IN THE ISB TRANSITIONS

Title (de)

ELEKTROOPTISCHE VORRICHTUNGEN AUF BASIS VON INDEXVARIATIONEN ODER ISB-ÜBERGANGS-ABSORPTIONEN

Title (fr)

DISPOSITIFS ELECTRO-OPTIQUES BASES SUR LA VARIATION D'INDICE OU D'ABSORPTION DANS DES TRANSITIONS ISB

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2011012833A2] The present invention relates to electro-optical components having intersubband transitions by means of quantum confinement between two Group III nitride elements, typically by means of GaN/AlN. The invention also relates to devices or systems including such components, as well as to a method for manufacturing such a component. According to the invention, such a component (2) includes at least one active area (23) that includes at least two so-called outer barrier layers (BL0, BL3) surrounding one or more N-doped quantum well structures (QW1, QW2, QW3), and is characterized in that said quantum well structure(s) are each surrounded by two barrier areas (BL0, BL1, BL2, BL3) that are unintentionally doped at a thickness of at least five monoatomic layers.

IPC 8 full level

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