

Title (en)
PHOTODIODE STRUCTURE AND METHOD FOR PRODUCING SAME

Title (de)
PHOTODIODENSTRUKTUR UND VERFAHREN ZU IHRER HERSTELLUNG

Title (fr)
PROCÉDÉ DE FABRICATION D'UNE STRUCTURE PHOTODIODE ET STRUCTURE PHOTODIODE

Publication
EP 4272264 A1 20231108 (FR)

Application
EP 21844784 A 20211230

Priority
• FR 2014308 A 20201231
• EP 2021087850 W 20211230

Abstract (en)
[origin: WO2022144419A1] A substrate (1) having an upper layer (2) made of a cadmium-doped semiconductor material is provided in order to produce a photodiode structure. A first layer (3) made of HgCdTe is formed by liquid phase epitaxy starting from the upper layer (2) with a bath containing an n-type electrically active dopant for electrically doping the first layer (3). The cadmium diffuses from the upper layer (2) to the first layer (3) to form a cadmium concentration gradient that decreases from the interface with the upper layer (2) moving away from the interface. The cadmium concentration gradient causes a band gap gradient which decreases in the first layer (3) from the interface and causes an n-type dopant concentration gradient in the first layer (2) starting from the interface.

IPC 8 full level
H01L 31/103 (2006.01); **H01L 31/0296** (2006.01)

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H01L 31/1032 (2013.01 - EP IL KR); **H01L 31/105** (2013.01 - KR); **H01L 31/18** (2013.01 - KR); **H01L 31/1832** (2013.01 - US)

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DOCDB simple family (publication)
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