

Title (en)
GaP-SEMICONDUCTOR ARRANGEMENT AND METHOD FOR PRODUCING THE SAME

Title (de)
GaP-HALBLEITERANORDNUNG UND VERFAHREN ZUR HERSTELLUNG DERSELBEN

Title (fr)
DISPOSITIF A SEMICONDUCTEUR GaP ET SON PROCEDE DE PRODUCTION

Publication
EP 1084514 A1 20010321 (DE)

Application
EP 99936321 A 19990526

Priority
• DE 9901549 W 19990526
• DE 19824566 A 19980602

Abstract (en)
[origin: DE19824566C1] A semiconductor arrangement comprising a GaP substrate and an epitaxial layer arranged on said substrate whereby said layer contains an n-doped and a p-doped partial layer. A p-n junction is formed in a boundary area between both partial layers. The epitaxial layer contains an extraneous substance, i.e. an element for the 3<rd> and or 5<th> main group, that is not identical to N and the maximum concentration thereof in the GaP epitaxial layer is less than 10^{20} cm⁻³.

IPC 1-7
H01L 33/00; H01L 21/208

IPC 8 full level
C30B 19/10 (2006.01); **C30B 29/44** (2006.01); **H01L 21/208** (2006.01); **H01L 33/00** (2010.01); **H01L 33/02** (2010.01); **H01L 33/30** (2010.01)

CPC (source: EP US)
H01L 33/0008 (2013.01 - EP US); **H01L 33/025** (2013.01 - EP US); **H01L 33/305** (2013.01 - EP US)

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
DE 19824566 C1 19991202; EP 1084514 A1 20010321; JP 2002517906 A 20020618; TW 442980 B 20010623; US 2001010375 A1 20010802; WO 9963602 A1 19991209

DOCDB simple family (application)
DE 19824566 A 19980602; DE 9901549 W 19990526; EP 99936321 A 19990526; JP 2000552723 A 19990526; TW 88108828 A 19990528; US 72868200 A 20001204