

Title (en)
A METHOD FOR USING CATALYST IN GROWTH OF SEMICONDUCTORS COMPRISING N-AND P- ATOMS AND DEVICE FOR THE METHOD

Title (de)
VERFAHREN ZUR VERWENDUNG EINES KATALYSATORS BEIM WACHSTUM VON HALBLEITERN MIT N- UND P-ATOMEN UND VORRICHTUNG FÜR DAS VERFAHREN

Title (fr)
PROCÉDÉ D'UTILISATION DE CATALYSEUR DANS LA CROISSANCE DE SEMI-CONDUCTEURS COMPRENANT DES ATOMES N ET P ET DISPOSITIF ASSOCIÉ AU PROCÉDÉ

Publication
EP 4334492 A1 20240313 (EN)

Application
EP 22799207 A 20220505

Priority
• SE 2130122 A 20210505
• SE 2022050438 W 20220505

Abstract (en)
[origin: WO2022235194A1] A semiconductor material of nitride-type in a gas phase epitaxial process in a growth chamber is grown on a wafer (1) on a susceptor whereby process gases (2) flows over the wafer, where one of the process gases consists of ammonia and one of phosphine (PH3) or arsine (AsH3), where the ammonia gas is forced to flow through a metallic catalyst (4, 7) before reaching the wafer (1).

IPC 8 full level
C23C 16/30 (2006.01); **C23C 16/34** (2006.01); **C23C 16/52** (2006.01); **C30B 25/02** (2006.01); **H01L 21/02** (2006.01)

CPC (source: EP SE)
C23C 16/303 (2013.01 - EP SE); **C23C 16/52** (2013.01 - SE); **C30B 25/02** (2013.01 - EP SE); **C30B 25/14** (2013.01 - EP); **C30B 29/403** (2013.01 - EP); **H01L 21/0254** (2013.01 - EP SE); **H01L 21/02543** (2013.01 - EP); **H01L 21/02546** (2013.01 - EP); **H01L 21/0262** (2013.01 - EP)

Citation (search report)
See references of WO 2022235194A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
WO 2022235194 A1 20221110; EP 4334492 A1 20240313; SE 2130122 A1 20221106; SE 545225 C2 20230530

DOCDB simple family (application)
SE 2022050438 W 20220505; EP 22799207 A 20220505; SE 2130122 A 20210505