Title (en)

EPITAXIAL GRAPHENE ON SIC, HAVING AN OPEN BANDGAP AND MOBILITY COMPARABLE TO THAT OF STANDARD ZERO-BANDGAP GRAPHENE

Title (de)

EPITAKTISCHES GRAPHEN AUF SIC MIT EINER BANDLÜCKE UND VERGLEICHBARER MOBILITÄT MIT JENER VON BANDLÜCKENFREIEM STANDARDGRAPHEN

Title (fr)

GRAPHENE EPITAXIE SUR SIC, AYANT UN GAP OUVERT ET UNE MOBILITE COMPARABLE A CELLE DU GRAPHENE STANDARD A GAP NUL

Publication

EP 2499658 A1 20120919 (FR)

Application

EP 10775826 A 20101109

Priority

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- EP 2010067134 W 20101109

Abstract (en)

[origin: WO2011054968A1] The invention relates to a method for manufacturing a modified structure (801) comprising a layer of semiconductor modified graphene (83) on a substrate (82), including the following consecutive steps: providing an initial structure (800) comprising at least one substrate (81), forming a graphene layer (82) on the substrate, and hydrogenating the initial structure (800) by means of exposing said structure to atomic hydrogen (85), and characterized in that the step of hydrogenating the graphene layer is carried out with a exposure dose of between 100 and 4,000 Langmuirs, and forms a modified graphene layer.

IPC 8 full level

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CPC (source: EP US)

H01L 21/02378 (2013.01 - EP US); **H01L 21/02381** (2013.01 - EP US); **H01L 21/02433** (2013.01 - EP US); **H01L 21/02447** (2013.01 - EP US); **H01L 21/02516** (2013.01 - EP US); **H01L 21/02527** (2013.01 - EP US); **H01L 21/02664** (2013.01 - EP US); **H01L 22/00** (2013.01 - US); **H01L 22/12** (2013.01 - US); B82Y 40/00 (2013.01 - US)

Citation (search report)

See references of WO 2011054968A1

Cited by

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DOCDB simple family (publication)

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