

Title (en)

A METHOD AND APPARATUS FOR FORMING A THIN LAMINA

Title (de)

VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG EINER DÜNNSCHICHT

Title (fr)

PROCÉDÉ ET APPAREIL DE FORMATION D'UNE FINE LAMINA

Publication

EP 2659521 A4 20150513 (EN)

Application

EP 11854117 A 20111220

Priority

- US 98042410 A 20101229
- US 201161510477 P 20110721
- US 201161510476 P 20110721
- US 201161510478 P 20110721
- US 201161510475 P 20110721
- US 2011066195 W 20111220

Abstract (en)

[origin: WO2012092026A2] A method for producing a lamina from a donor body includes implanting the donor body with an ion dosage and heating the donor body to an implant temperature during implanting. The donor body is separably contacted with a susceptor assembly, where the donor body and the susceptor assembly are in direct contact. A lamina is exfoliated from the donor body by applying a thermal profile to the donor body. Implantation and exfoliation conditions may be adjusted in order to maximize the defect-free area of the lamina.

IPC 8 full level

H01L 31/18 (2006.01); **H01L 21/265** (2006.01); **H01L 21/67** (2006.01); **H01L 21/683** (2006.01); **H01L 21/762** (2006.01); **H01L 31/0224** (2006.01); **H01L 31/042** (2014.01); **H01L 31/056** (2014.01)

CPC (source: EP KR)

H01L 21/265 (2013.01 - KR); **H01L 21/67** (2013.01 - KR); **H01L 21/67092** (2013.01 - EP); **H01L 21/67132** (2013.01 - EP); **H01L 21/6838** (2013.01 - EP); **H01L 21/76254** (2013.01 - EP); **H01L 31/022466** (2013.01 - EP); **H01L 31/042** (2013.01 - KR); **H01L 31/056** (2014.12 - EP); **H01L 31/18** (2013.01 - KR); **H01L 31/1804** (2013.01 - EP); **Y02E 10/52** (2013.01 - EP); **Y02E 10/547** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

Citation (search report)

- [X] US 2007277874 A1 20071206 - DAWSON-ELLI DAVID FRANCIS [US], et al
- [I] US 2010159630 A1 20100624 - HILALI MOHAMED M [US], et al
- [A] US 2003216008 A1 20031120 - SCHWARZENBACH WALTER [FR], et al
- [A] EP 2117053 A2 20091111 - SILICON GENESIS CORP [US]
- See references of WO 2012092026A2

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

DOCDB simple family (publication)

WO 2012092026 A2 20120705; **WO 2012092026 A3 20121011**; CN 103370800 A 20131023; EP 2659521 A2 20131106; EP 2659521 A4 20150513; JP 2014506008 A 20140306; KR 20140004120 A 20140110; TW 201246301 A 20121116; TW I552205 B 20161001

DOCDB simple family (application)

US 2011066195 W 20111220; CN 201180062986 A 20111220; EP 11854117 A 20111220; JP 2013547546 A 20111220; KR 20137017692 A 20111220; TW 100149202 A 20111228