

Title (en)

METHOD FOR INTEGRATING AT LEAST ONE 3D INTERCONNECTION FOR THE MANUFACTURE OF AN INTEGRATED CIRCUIT

Title (de)

VERFAHREN ZUR INTEGRATION VON MINDESTENS EINER 3D-VERBINDUNG ZUR HERSTELLUNG EINER INTEGRIERTEN SCHALTUNG

Title (fr)

PROCEDE D'INTEGRATION D'AU MOINS UNE INTERCONNEXION 3D POUR LA FABRICATION DE CIRCUIT INTEGRE

Publication

**EP 3350827 A1 20180725 (FR)**

Application

**EP 16770715 A 20160914**

Priority

- FR 1558544 A 20150914
- EP 2016071674 W 20160914

Abstract (en)

[origin: WO2017046153A1] The invention relates to a method for integrating at least one interconnection for the manufacture of an integrated circuit, including a step of depositing at least one insulating body (7) onto a substrate (1) including a horizontal surface (1a), said insulating body (7) comprising a first wall (7b) extending from the horizontal surface (1a) of the substrate (1) to a high point of said insulating body (7), and a step of depositing a one-piece electrical structure (9) which is made of an electrically conductive material and extends on the horizontal surface (1a) of the substrate (1) and the first wall (7b) of the insulating body (7), the first wall (7b) being vertically angled by more than 10 µm and having a rising slope extending from the horizontal surface (1a) of the substrate (1) to the high point of said insulating body (7).

IPC 8 full level

**H01L 21/60** (2006.01); **H01L 23/485** (2006.01)

CPC (source: EP US)

**H01L 21/4857** (2013.01 - EP US); **H01L 23/49822** (2013.01 - EP US); **H01L 24/24** (2013.01 - EP US); **H01L 24/32** (2013.01 - US);  
**H01L 24/82** (2013.01 - EP US); **H01L 28/10** (2013.01 - EP US); **H01L 2224/24011** (2013.01 - EP US); **H01L 2224/24051** (2013.01 - EP US);  
**H01L 2224/24105** (2013.01 - EP US); **H01L 2224/24146** (2013.01 - EP US); **H01L 2224/24226** (2013.01 - EP US);  
**H01L 2224/24265** (2013.01 - US); **H01L 2224/24991** (2013.01 - EP US); **H01L 2224/24998** (2013.01 - EP US);  
**H01L 2224/82051** (2013.01 - EP US); **H01L 2224/821** (2013.01 - US); **H01L 2224/82101** (2013.01 - EP US); **H01L 2924/19011** (2013.01 - US);  
**H01L 2924/19042** (2013.01 - US); **H01L 2924/19104** (2013.01 - US)

Citation (search report)

See references of WO 2017046153A1

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

DOCDB simple family (publication)

**FR 3041147 A1 20170317; FR 3041147 B1 20180202;** EP 3350827 A1 20180725; US 10438923 B2 20191008; US 2018254258 A1 20180906;  
WO 2017046153 A1 20170323

DOCDB simple family (application)

**FR 1558544 A 20150914;** EP 16770715 A 20160914; EP 2016071674 W 20160914; US 201615759735 A 20160914