

Title (en)
FABRICATION TECHNIQUES TO ENHANCE PRESSURE UNIFORMITY IN ANODICALLY BONDED VAPOR CELLS AND CORRESPONDING
WAFER STRUCTURE

Title (de)
Herstellungstechniken zur Verbesserung der Druckgleichförmigkeit in anodisch gebundenen Dampfzellen und Mikroplättchenstruktur dazu

Title (fr)
Techniques de fabrication pour améliorer l'uniformité de la pression dans des cellules de vapeur anodiquement liées et structure plaquette
correspondante

Publication
EP 2746876 A2 20140625 (EN)

Application
EP 13181421 A 20130822

Priority
US 201213662850 A 20121029

Abstract (en)
A method of fabricating one or more vapor cells comprises forming one or more vapor cell dies in a first wafer having a first diameter, and anodically bonding a second wafer to a first side of the first wafer over the vapor cell dies, the second wafer having a second diameter. A third wafer is positioned over the vapor cell dies on a second side of the first wafer opposite from the second wafer, with the third wafer having a third diameter. A sacrificial wafer is placed over the third wafer, with the sacrificial wafer having a diameter that is larger than the first, second and third diameters. A metallized bond plate is located over the sacrificial wafer. The third wafer is anodically bonded to the second side of the first wafer when a voltage is applied to the metallized bond plate while the sacrificial wafer is in place.

IPC 8 full level
G04F 5/14 (2006.01)

CPC (source: EP)
G04F 5/145 (2013.01)

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)
EP 2746876 A2 20140625; EP 2746876 A3 20180110; EP 2746876 B1 20190410; CN 103792838 A 20140514; CN 103792838 B 20170811;
JP 2014088308 A 20140515; JP 6198522 B2 20170920

DOCDB simple family (application)
EP 13181421 A 20130822; CN 201310383281 A 20130829; JP 2013175327 A 20130827