

Title (en)
SEMICONDUCTOR SUBSTRATE AND MANUFACTURING METHOD THEREFOR

Title (de)
HALBLEITERSUBSTRAT UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)
SUBSTRAT A SEMI-CONDUCTEUR ET PROCEDE DE FABRICATION ASSOCIE

Publication
EP 1620880 A4 20080806 (EN)

Application
EP 04730068 A 20040428

Priority
• JP 2004006178 W 20040428
• JP 2003128917 A 20030507

Abstract (en)
[origin: WO2004100233A1] The first step of implanting ions in the first substrate which has a gallium arsenide layer on a germanium member and forming an ion-implanted layer in the first substrate, the second step of bonding the first substrate to the second substrate to form a bonded substrate stack, and the third step of dividing the bonded substrate stack at the ion-implanted layer are performed, thereby manufacturing a semiconductor substrate.

IPC 8 full level
H01L 21/02 (2006.01); **H01L 21/20** (2006.01); **H01L 21/762** (2006.01); **H01L 27/12** (2006.01)

CPC (source: EP KR)
H01L 21/20 (2013.01 - KR); **H01L 21/265** (2013.01 - KR); **H01L 21/76254** (2013.01 - EP); **H01L 21/76259** (2013.01 - EP)

Citation (search report)
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• [Y] EP 0961312 A2 19991201 - CANON KK [JP]
• [A] EP 0994503 A1 20000419 - COMMISSARIAT ENERGIE ATOMIQUE [FR]
• [A] VENKATASUBRAMANIAN R: "HIGH-QUALITY EUTECTIC-METAL-BONDED ALGAAS-GAAS THIN FILMS ON SI SUBSTRATES", APPLIED PHYSICS LETTERS, AIP, AMERICAN INSTITUTE OF PHYSICS, MELVILLE, NY, vol. 60, no. 7, 17 February 1992 (1992-02-17), pages 886 - 888, XP000290448, ISSN: 0003-6951
• See references of WO 2004100233A1

Designated contracting state (EPC)
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DOCDB simple family (publication)
WO 2004100233 A1 20041118; CN 100358104 C 20071226; CN 101145509 A 20080319; CN 1698180 A 20051116; EP 1620880 A1 20060201; EP 1620880 A4 20080806; JP 2004335693 A 20041125; JP 4532846 B2 20100825; KR 100725141 B1 20070607; KR 20060005406 A 20060117; TW 200425261 A 20041116; TW I259514 B 20060801

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JP 2004006178 W 20040428; CN 200480000686 A 20040428; CN 200710181235 A 20040428; EP 04730068 A 20040428; JP 2003128917 A 20030507; KR 20057020457 A 20051028; TW 93111750 A 20040427