

Title (en)
HEAT TREATMENT AFTER A SMART-CUT SEPARATION

Title (de)
WÄRMEBEHANDLUNG NACH SMART-CUT-TRENNUNG

Title (fr)
TRAITEMENT THERMIQUE APRES DETACHEMENT SMART-CUT

Publication
EP 1726039 A1 20061129 (FR)

Application
EP 05737041 A 20050307

Priority
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Abstract (en)
[origin: US2005196936A1] A method for thermally treating a semiconductor layer is described. An embodiment of the technique includes implanting atomic species into a first surface of a donor wafer to form a zone of weakness at a predetermined depth that defines the thickness of a transfer layer, bonding the first surface of the donor wafer to a host wafer, supplying energy to detach the transfer layer from the donor wafer at the zone of weakness, and conducting a recovery operation on the transfer layer. The recovery operation is conducted after detachment but while the layer remains in contact with the donor wafer. The recovery operation includes heat treating the transfer layer for a predetermined duration at a recovery temperature that is lower than a re-adhesion temperature at which the transfer layer would re-adhere to the donor wafer, to improve the crystalline quality and the surface roughness of the transfer layer.

IPC 8 full level
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H01L 21/30 (2013.01 - KR); **H01L 21/76254** (2013.01 - EP US); **Y02P 70/50** (2015.11 - EP US)

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