Title (en)
METHOD FOR PRODUCING ELECTRONIC CHIPS CONSISTING OF THINNED SILICON

Title (de)
VERFAHREN ZUR HERSTELLUNG VON AUS VERDÜNNTEM SILIZIUM BESTEHENDEN ELEKTRONISCHEN CHIPS

Title (fr)
PROCEDE DE FABRICATION DE PUCES ELECTRONIQUES EN SILICIUM AMINCI

Publication
EP 1700343 A1 20060913 (FR)

Application
EP 04820955 A 20041118

Priority
• EP 2004053003 W 20041118
• FR 0314595 A 20031212

Abstract (en)
[origin: FR2863773A1] The manufacture of electronic chips from a semiconductor wafer, incorporating a thin active layer (12) of semiconductor material on its leading surface, includes the production of engraved layers on the active layer, the transfer of the wafer by its leading surface on to a transfer substrate (40), the thinning of the semiconductor wafer by its rear surface and the deposition and engraving of layers of material on the thinned rear surface. Some vertical narrow trenches are hollowed out in the wafer by the leading surface, prior to the transfer. The trenches extend into the wafer to a depth almost equal to the residual thickness of the semiconductor wafer that will subsist after the thinning operation. The trenches are filled with conducting material insulated from the active layer and constituting conducting tracks (20', 22', 24', 26') between the leading surface and the rear surface of the thinned layer. An independent claim is also included for a colour image sensor.

IPC 8 full level
H01L 27/146 (2006.01); **H01L 21/768** (2006.01)

CPC (source: EP US)
H01L 21/76898 (2013.01 - EP US); **H01L 23/544** (2013.01 - EP); **H01L 27/14601** (2013.01 - EP US); **H01L 27/1464** (2013.01 - EP US); **H01L 27/14645** (2013.01 - EP US); H01L 2223/54426 (2013.01 - EP); H01L 2223/54453 (2013.01 - EP)

Citation (search report)
See references of WO 2005067054A1

Citation (examination)
JP H11274501 A 19991008 - DENSO CORP

Designated contracting state (EPC)
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FR 2863773 A1 20050617; **FR 2863773 B1 20060519**; CA 2546310 A1 20050721; CN 1894797 A 20070110; EP 1700343 A1 20060913; JP 2007518253 A 20070705; JP 4863214 B2 20120125; US 2007166956 A1 20070719; WO 2005067054 A1 20050721

DOCDB simple family (application)
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