

Title (en)

A semiconductor substrate, devices having the same and a method of manufacturing the same

Title (de)

Halbleiterwafer, Halbleiteranordnung enthaltende denselben und Verfahren zur dessen Herstellung

Title (fr)

Substrat semi-conducteur, dispositifs composés de ce dernier et procédé pour sa fabrication

Publication

EP 0724932 A1 19960807 (EN)

Application

EP 96300388 A 19960119

Priority

- JP 751595 A 19950120
- JP 8158995 A 19950406
- JP 8290595 A 19950407
- JP 31566195 A 19951204

Abstract (en)

A semiconductor substrate (1), devices comprising such a substrate, and a method of manufacturing them are disclosed. In particular, a method of processing the surface of a semiconductor substrate (1) comprises rotating the substrate (1), rotating a grinding wheel (6) about an axis (Z) which is substantially perpendicular to the axis of rotation of the substrate (X), and moving the axis of rotation of the wheel (Z) along an axis (Y) which is substantially perpendicular to the axis of rotation of the substrate (X) and the axis of rotation of the wheel (Z) to grind the substrate (1). A processed substrate comprises a process-transformed layer having an undulated surface. The thickness of the process transformed layer at its minimum is in the range of 0.1 μm to 0.5 μm and/or the difference between the minimum and maximum height of the undulated surface is in the range of 0.3 μm to 3 μm . <IMAGE>

IPC 1-7

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CPC (source: EP)

B24B 1/00 (2013.01); **B24B 7/04** (2013.01); **B24B 7/16** (2013.01); **B24B 7/22** (2013.01)

Citation (search report)

- [XA] EP 0362516 A2 19900411 - IBM [US]
- [A] FR 2505709 A1 19821119 - OD POLT INSTITUT [SU]
- [A] US 5083401 A 19920128 - YAMASHITA MIKIO [JP], et al
- [A] EP 0588055 A2 19940323 - MITSUBISHI MATERIALS CORP [JP], et al
- [A] US 3943666 A 19760316 - DION C NORMAN, et al
- [A] "ANNOUNCEMENT", JAPAN NEW MATERIALS LETTER, vol. 8, no. 24, 26 December 1989 (1989-12-26), XP000105978
- [A] PATENT ABSTRACTS OF JAPAN vol. 007, no. 047 (M - 196) 24 February 1983 (1983-02-24)

Cited by

EP0824053A1; US5964652A; DE19632809C2

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