Title (en)
MEMORY CELL COMPRISING A TRENCH AND METHOD FOR PRODUCTION THEREOF

Title (de)
SPEICHERZELLE MIT EINEM GRABEN UND VERFAHREN ZU IHRER HERSTELLUNG

Title (fr)
CELLULE DE MEMOIRE POURVUE D'UNE TRANCHEE ET PROCEDE DE FABRICATION

Publication
EP 1366516 A2 20031203 (DE)

Application
EP 02714036 A 20020219

Priority
- DE 0200596 W 20020219
- DE 10111499 A 20010309

Abstract (en)
[origin: DE10111499C1] Storage cell comprises a substrate (2); a trench (3) having a lower region, a middle region, an upper region and an inner wall arranged in the substrate; an insulation collar (8) arranged in the middle region on the inner wall of the trench; a dielectric layer (9) arranged in the lower region of the trench; a conducting trench filling (10) arranged in the lower region and the middle region of the trench; an epitaxially grown layer (11) arranged in the upper region of the trench on the inner wall; and a barrier layer (60) arranged between the filling and the epitaxially grown layer. An Independent claim is also included for a process for the production of the storage cell. Preferred Features: A second dielectric layer with an inner opening is arranged in the upper region of the trench above the epitaxially grown layer. A second trench is arranged in the epitaxially grown layer.

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H01L 21/8242

IPC 8 full level
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H10B 12/00 (2023.02 - KR); **H10B 12/0383** (2023.02 - EP US); **H10B 12/053** (2023.02 - EP US); H10B 12/0385 (2023.02 - EP US); H10B 12/488 (2023.02 - EP US)

Citation (search report)
See references of WO 02073694A2

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