

Title (en)

FLASH MEMORY CELL WITH SELF-ALIGNED GATES AND FABRICATION PROCESS

Title (de)

FLASH-SPEICHERZELLE MIT SELBST-JUSTIERTEN TOREN UND HERSTELLUNGSVERFAHREN

Title (fr)

CELLULE DE MEMOIRE FLASH A GRILLES AUTO-ALIGNEES ET SON PROCEDE DE FABRICATION

Publication

EP 1076916 A1 20010221 (EN)

Application

EP 00908762 A 20000217

Priority

- US 0004455 W 20000217
- US 25536099 A 19990223
- US 27567099 A 19990324
- US 31046099 A 19990512

Abstract (en)

[origin: WO0051188A1] Nonvolatile memory cell and process in which isolation oxide regions are formed on opposite sides of an active area in a substrate to a height above the substrate on the order of 80 to 160 percent of the width of the active area, a first layer of silicon is deposited on the gate oxide and along the sides of the isolation oxide regions to form a floating gate having a bottom wall which is substantially coextensive with the gate oxide and side walls having a height on the order of 80 to 160 percent of the width of the bottom wall, a dielectric film is formed on the floating gate, and a second layer of silicon is deposited on the dielectric film and patterned to form a control gate.

IPC 1-7

H01L 29/788; **H01L 21/336**

IPC 8 full level

H01L 21/28 (2006.01); **H01L 21/8247** (2006.01); **H01L 27/115** (2006.01); **H01L 29/423** (2006.01); **H01L 29/788** (2006.01)

CPC (source: EP)

H01L 29/40114 (2019.07); **H01L 29/42324** (2013.01); **H01L 29/42328** (2013.01); **H01L 29/7883** (2013.01); **H10B 41/30** (2023.02); **H10B 69/00** (2023.02)

Citation (search report)

See references of WO 0051188A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0051188 A1 20000831; CN 1300444 A 20010620; CN 1323440 C 20070627; EP 1076916 A1 20010221; JP 2002538608 A 20021112; TW 439280 B 20010607

DOCDB simple family (application)

US 0004455 W 20000217; CN 00800528 A 20000217; EP 00908762 A 20000217; JP 2000601695 A 20000217; TW 89102860 A 20000218