

Title (en)

METHOD FOR PRODUCING A SEMICONDUCTOR COMPONENT CONTROLLED BY FIELD EFFECT

Title (de)

HERSTELLUNGSVERFAHREN FÜR EIN DURCH FELDEFFEKT GESTEUERTES HALBLEITERBAUELEMENT

Title (fr)

PROCEDE POUR LA FABRICATION D'UN COMPOSANT A SEMI-CONDUCTEURS COMMANDE PAR EFFET DE CHAMP

Publication

**EP 0998754 A1 20000510 (DE)**

Application

**EP 98947305 A 19980717**

Priority

- DE 9802022 W 19980717
- DE 19731496 A 19970722

Abstract (en)

[origin: DE19731496A1] The invention relates to a method for producing semiconductor components controlled by field effect e.g. but not exclusively MIS power transistors, wherein said semiconductor components comprise a substrate of a first capacity type, covered by a gate insulating layer. The inventive method for producing semiconductor components controlled by field effect and comprising a semiconductor substrate(1) of a first capacity type and a gate insulating layer(2) on the surface(3) of said substrate (1) consists inter alia in making a second capacity type trough(4) in the semiconductor substrate (1) by implanting first impurities and is characterized by steps undertaken to produce a semiconductor layer (8,9) of a first given thickness on the gate insulating layer (2) before producing the trough (4) and reducing the semiconductor layer (8,9) in a given area to obtain a residual layer (6) of a second given thickness, so that the semiconductor layer (9) acts as an implantation barrier outside the given area when the trough (4) is produced.

IPC 1-7

**H01L 21/336**; **H01L 29/78**

IPC 8 full level

**H01L 21/336** (2006.01); **H01L 29/423** (2006.01); **H01L 29/78** (2006.01); **H01L 29/10** (2006.01)

CPC (source: EP US)

**H01L 29/42376** (2013.01 - EP US); **H01L 29/7802** (2013.01 - EP US); **H01L 29/1095** (2013.01 - EP US); **H01L 29/41766** (2013.01 - EP US)

Citation (search report)

See references of WO 9905714A1

Designated contracting state (EPC)

DE FR GB IE IT

DOCDB simple family (publication)

**DE 19731496 A1 19990128**; EP 0998754 A1 20000510; JP 2001511601 A 20010814; US 6248620 B1 20010619; WO 9905714 A1 19990204

DOCDB simple family (application)

**DE 19731496 A 19970722**; DE 9802022 W 19980717; EP 98947305 A 19980717; JP 2000504600 A 19980717; US 49109500 A 20000124