

Title (en)  
SEMICONDUCTOR DEVICE COMPRISING DEUTERIUM ATOMS.

Title (de)  
HALBLEITERANORDNUNG DIE DEUTERIUM ATOME ENTHÄLT.

Title (fr)  
DISPOSITIF A SEMI-CONDUCTEUR COMPRENANT DES ATOMES DE DEUTERIUM.

Publication  
**EP 0685115 A1 19951206 (EN)**

Application  
**EP 94910119 A 19940217**

Priority  
• US 9401669 W 19940217  
• US 1993493 A 19930219

Abstract (en)  
[origin: WO9419829A1] A method is provided in which a silicon wafer is contacted with a deuterium containing material to form Si-D and Si-OD bonds on a silicon surface at an interface with a silicon dioxide layer. An MOS device is formed by employing deuterium containing compounds at various stages of the fabrication procedure. After an MOS gate oxide is formed, the wafer is annealed in a deuterium containing atmosphere and a polysilicon layer is formed by chemical vapor deposition employing deuterium containing compounds. The device is subsequently cleaned with a deuterium containing compound such as D<sub>2</sub>O, D<sub>2</sub>SO<sub>4</sub>, and DCl.

IPC 1-7  
**H01L 29/40**; **H01L 21/306**

IPC 8 full level  
**H01L 21/28** (2006.01); **H01L 21/306** (2006.01); **H01L 21/3105** (2006.01); **H01L 21/316** (2006.01); **H01L 29/40** (2006.01); **H01L 29/51** (2006.01)

CPC (source: EP KR)  
**H01L 21/02052** (2013.01 - EP); **H01L 21/02238** (2013.01 - EP); **H01L 21/02255** (2013.01 - EP); **H01L 21/02337** (2013.01 - EP); **H01L 21/28035** (2013.01 - EP); **H01L 21/28185** (2013.01 - EP); **H01L 21/3105** (2013.01 - EP); **H01L 29/40** (2013.01 - KR); **H01L 29/51** (2013.01 - EP)

Citation (search report)  
See references of WO 9419829A1

Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**WO 9419829 A1 19940901**; EP 0685115 A1 19951206; JP H08507175 A 19960730; KR 960701477 A 19960224

DOCDB simple family (application)  
**US 9401669 W 19940217**; EP 94910119 A 19940217; JP 51910394 A 19940217; KR 19950703467 A 19950818