

Title (en)

SONOS STACK WITH SPLIT NITRIDE MEMORY LAYER

Title (de)

SONOS-STAPEL MIT GETEILTER NITRIDSPEICHERSCHICHT

Title (fr)

PILE DE SONOS AVEC COUCHE DE MÉMOIRE AU NITRURE FENDUE

Publication

**EP 2831916 A1 20150204 (EN)**

Application

**EP 13767277 A 20130308**

Priority

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Abstract (en)

[origin: WO2013148112A1] Embodiments of a non-planar memory device including a split charge-trapping region and methods of forming the same are described. Generally, the device comprises: a channel formed from a thin film of semiconducting material overlying a surface on a substrate connecting a source and a drain of the memory device; a tunnel oxide overlying the channel; a split charge-trapping region overlying the tunnel oxide, the split charge-trapping region including a bottom charge-trapping layer comprising a nitride closer to the tunnel oxide, and a top charge-trapping layer, wherein the bottom charge-trapping layer is separated from the top charge-trapping layer by a thin anti-tunneling layer comprising an oxide. Other embodiments are also disclosed.

IPC 8 full level

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