

Title (en)

CAPACITOR-LESS 1-TRANSISTOR DRAM CELL AND METHOD FOR PRODUCING THE SAME

Title (de)

KONDENSATORLOSE 1-TRANSISTOR-DRAM-ZELLE UND HERSTELLUNGSVERFAHREN

Title (fr)

CELLULE DRAM A 1 TRANSISTOR SANS CONDENSATEUR ET PROCEDE DE PRODUCTION CORRESPONDANT

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Application

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Abstract (en)

[origin: WO03067661A1] The invention relates to a capacitor-less 1-transistor dram cell, wherein a channel region (11) and the source/drain region (9, 10) are disposed vertically on a flank of a dielectric trench fill (4). On the opposite side, the semiconductor material is limited by the gate dielectric (18) and the gate electrode (16) that is disposed in a recess of the semiconductor material. A memory cell array comprises a plurality of vertically aligned strip-shaped semiconductor regions in which source/drain regions are implanted at the top and at the bottom, and in between which a channel region which is fully embedded in an insulating material is disposed as a floating body.

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