

Title (en)

FIELD EFFECT TRANSISTOR ASSEMBLY AND AN INTEGRATED CIRCUIT ARRAY

Title (de)

FELDEFFEKTTRANSISTOR-ANORDNUNG UND SCHALTKREIS-ARRAY

Title (fr)

ENSEMBLE TRANSISTOR A EFFET DE CHAMP ET RESEAU DE CIRCUITS DE COMMUTATION

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2004040668A2] The invention relates to a field effect transistor assembly and an integrated circuit array. The field effect transistor assembly contains a substrate, a first wiring plane with a first source/drain region on the substrate and a second wiring plane with a second source/drain region above the first wiring plane. The field effect transistor assembly also comprises at least one vertical nanoelement as a channel region, which is situated between and coupled to both wiring planes. The nanoelement is at least partially surrounded by electrically conductive material, forming a gate region, whereby electrically insulating material is provided between the nanoelement and the electrically conductive material to act as a gate insulating layer.

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H01L 51/20

IPC 8 full level

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