

Title (en)

A METHOD OF FABRICATING LDD MOS TRANSISTORS UTILIZING HIGH ENERGY ION IMPLANT THROUGH AN OXIDE LAYER

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES LDD-MOS-TRANSISTORS MITTELS HOCHENERGETISCHER IONENIMPLANTATION DURCH EINE OXIDSCHICHT

Title (fr)

PROCEDE DE FABRICATION DE TRANSISTORS MOS A DRAIN FAIBLEMENT DOPE (LDD) PAR IMPLANTATION D'IONS A HAUTE ENERGIE A TRAVERS UNE COUCHE D'OXIDE

Publication

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Application

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Abstract (en)

[origin: WO9619011A1] A method of fabricating a MOS integrated circuit device utilizes high energy, high current implanting of ions through a layer of oxide to form heavily doped source and drain regions which are self-aligned with a polysilicon gate. A thick portion of the oxide layer adjacent to the polysilicon gate prevents heavy doping in the substrate next to the gate. The oxide layer is removed and a lightly doped drain (LDD) implant forms an LDD region which is self-aligned with the gate. Using this method the source/drain and LDD implants are performed using only a single mask and etch operation, rather than two mask and etch operations which are necessary using a conventional process.

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