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(71) Applicant: ADVANCED MICRO DEVICES, INC. [US/US]; One AMD Place, Mail Stop 68, Sunnyvale, CA 94088-3453 (US).

(72) Inventors: HADDAD, Sameer; 6277 Blossom Avenue, San Jose, CA 95123 (US). RANDOLPH, Mark, W.; 3673 Kendra Way, San Jose, CA 95130 (US). HE, Yue-Song; 1054 Hyde Avenue, San Jose, CA 95129 (US). THURGATE, Timothy; 1363 Arleen Avenue, Sunnyvale, CA 94087 (US). CHANG, Chi; 342 Lakeview Way, Redwood City, CA 94062 (US). WONG, Ngaching; 1220 Briarleaf Circle, San Jose, CA 95131 (US).

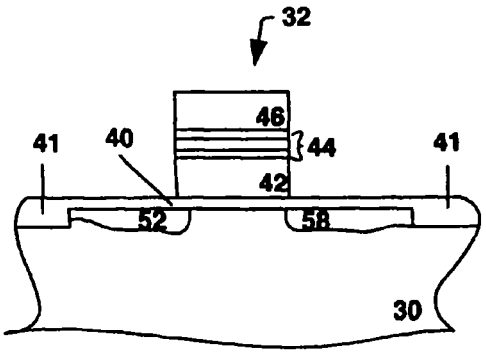
(74) Agent: RODDY, Richard, J.; Advanced Micro Devices, Inc., One AMD Place, Mail Stop 68, Sunnyvale, CA 94088-3453 (US).

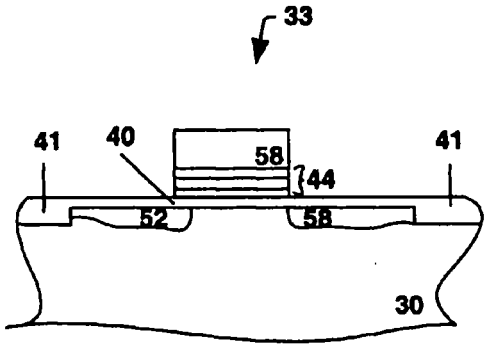
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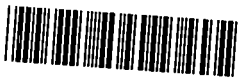
(54) Title: NON-VOLATILE MEMORY WITH SOURCE SIDE BORON IMPLANTATION

(57) Abstract: One aspect of the present invention relates to a method of making a flash memory cell (32), involving providing a substrate (30) having a flash memory cell (32) thereon; forming a self-aligned source mask (48) over the substrate, the self aligned source mask (48) having openings (50) corresponding to source lines; implanting a source dopant of a first type in the substrate through the openings (50) in the self-aligned source mask (48) corresponding to source lines (52); removing the self-aligned source mask (48) from the substrate (30); forming a MDD mask (54) over the substrate (30), the MDD mask (54) covering the source lines (52) and having openings (56) corresponding to drain lines; and implanting a medium dosage drain implant of a second type to form a drain region (58) in the substrate (30) adjacent the flash memory cell (32).





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