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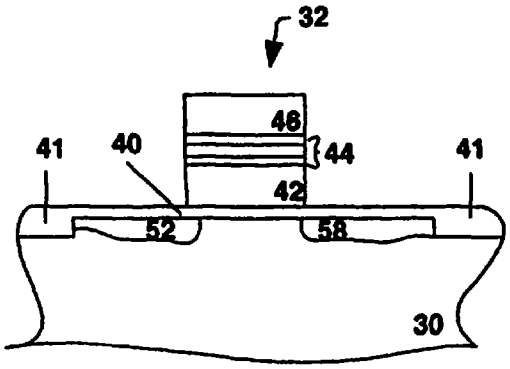
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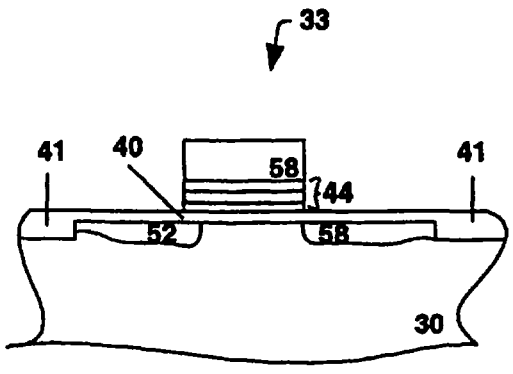
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(54) Title: NON-VOLATILE MEMORY WITH SOURCE SIDE BORON IMPLANTATION



(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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