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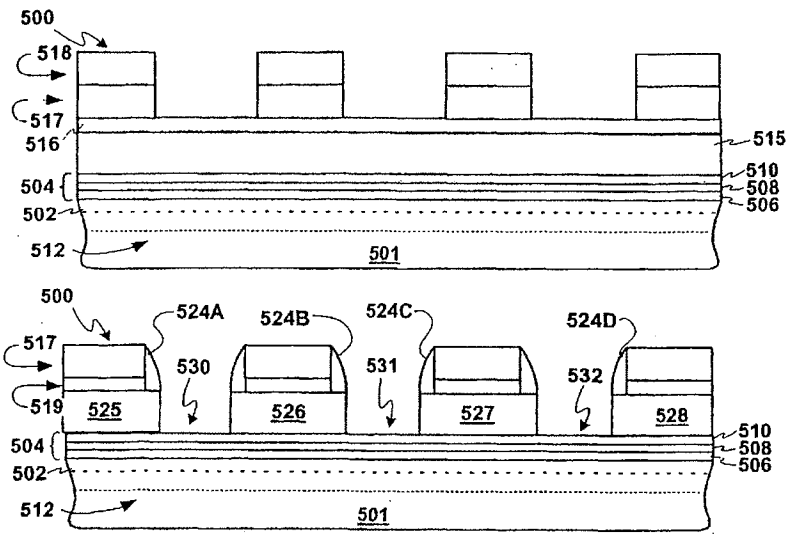
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(54) Title: MEMORY WORDLINE HARD MASK EXTENSION



(57) Abstract: A manufacturing method is provided for an integrated circuit memory with closely spaced wordlines (525) (526) formed by using the hard mask extensions (524). A charge-trapping dielectric material (504) is deposited over a semiconductor substrate (501) and first and second bitlines (512) are formed therein. A wordline material (515) and a hard mask material (515) are deposited over the wordline material (515). A photoresist material (518) is deposited over the hard mask material (515) and is processed to form a patterned photoresist material (518). The hard mask material (515) is processed using the patterned photoresist material (518) to form a patterned hard mask material (519). The patterned photoresist is then removed. A hard mask extension material (524) is deposited over the wordline material (515) and is processed to form a hard mask extension (524). The wordline material (515) is processed using the patterned hard mask material (519) and the hard mask extension (524) to form a wordline (525), and the patterned hard mask material (519) and the hard mask extension (524) are then removed.

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