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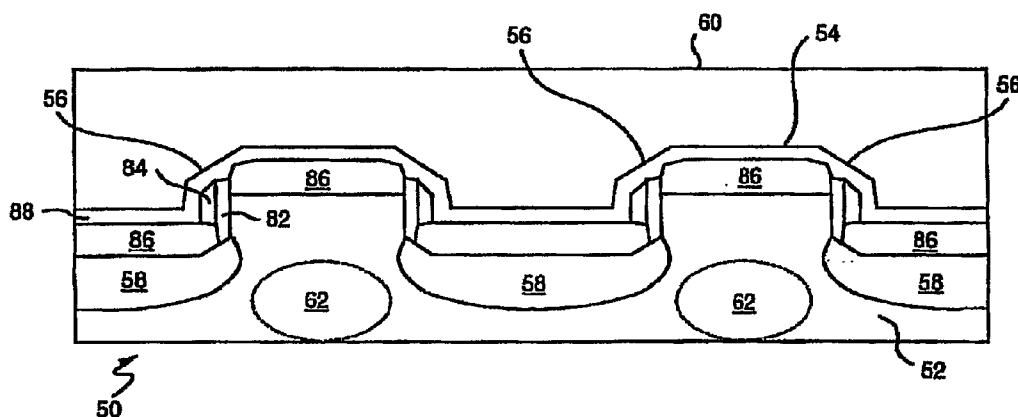
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(54) Title: MEMORY CELLS HAVING SPLIT CHARGE STORAGE NODES AND METHODS FOR FABRICATING MEM-  
ORY CELLS HAVING SPLIT CHARGE STORAGE NODES



(57) Abstract: Memory cells having split charge storage nodes and methods for fabricating memory cells having split charge storage nodes are disclosed. A disclosed method includes forming a first trench (64) and an adjacent second trench (64) in a semiconductor substrate (52), the first trench and the second trench each defining a first sidewall and a second sidewall respectively and forming a first source/drain region (58) in the substrate and a second source/drain-region (58) in the substrate, where the first source/drain region and the second source/drain region are formed substantially under the first trench and the second trench in the semiconductor substrate respectively. Moreover, a method includes forming a bit line punch through barrier (62) in the substrate between the first source/drain region and the second source drain region and forming a first storage element (84) on the first sidewall of the first trench and a second storage element on the second sidewall of the second element. A word line (60) is formed in contact with the first storage element and the second storage element.



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## B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
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A	US 2004/238852 A1 (LEE DANA [US] ET AL) 2 December 2004 (2004-12-02) abstract; figures 2A-2Q, 3A-3Q page 3, paragraph 37 - page 5, paragraph 50 ----- -/-	1-10



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