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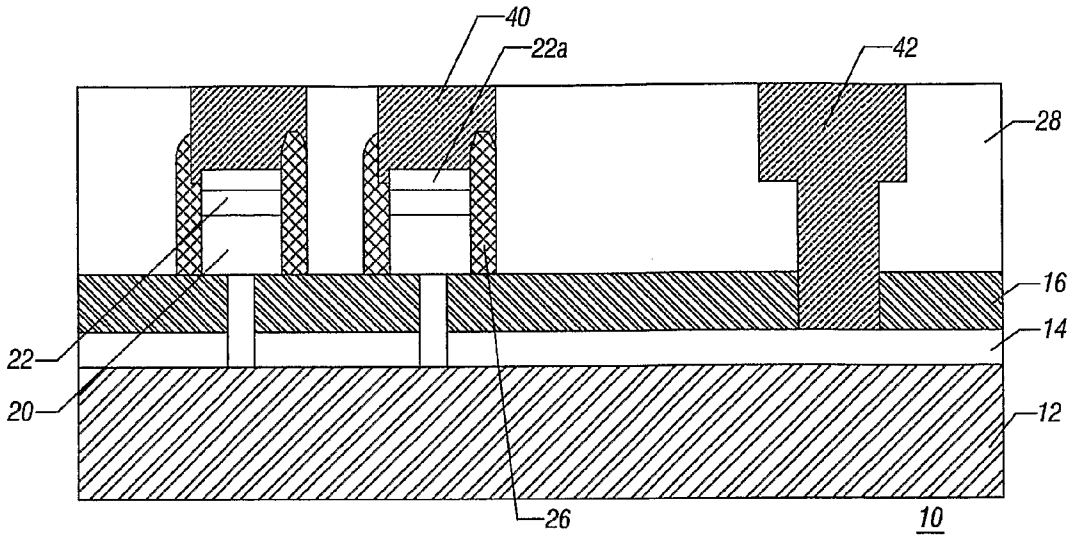
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(54) Title: INCREASING PHASE CHANGE MEMORY COLUMN LANDING MARGIN



(57) Abstract: A phase change memory with higher column landing margin may be formed. In one approach, the column landing margin may be increased by increasing the height of an electrode. For example, the electrode being made of two disparate materials, one of which (22) includes nitride and the other of which (22A) does not. In another approach, a hard mask (24) is used which is of substantially the same material as an overlying and surrounding insulator (28) . The hard mask and an underlying phase change material (20) are protected by a sidewall spacer (26) of a different material than the hard mask. If the hard mask and the insulator have substantially the same etch characteristics, the hard mask may be removed while maintaining the protective character of the sidewall spacer.

WO 2007/053474 A3

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