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(54) Title: MTJ STACK CONTAINING TOP MAGNETIC PINNED LAYER HAVING STRONG PERPENDICULAR MAGNETIC ANISOTROPY

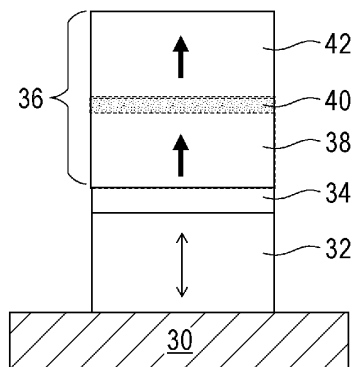


FIG. 3

(57) Abstract: A top pinned magnetic tunnel junction (MTJ) stack containing a magnetic pinned layered structure including a second magnetic pinned layer having strong perpendicular magnetic anisotropy (PMA) is provided. The magnetic pinned layered structure includes a crystal grain growth controlling layer located between a first magnetic pinned layer having a body centered cubic (BCC) texture and the second magnetic pinned layer. The presence of the crystal grain growth controlling layer facilitates formation of a second magnetic pinned layer having a face centered cubic (FCC) texture or a hexagonal closed packing (HCP) texture which, in turn, promotes strong PMA to the second magnetic pinned layer of the magnetic pinned layered structure.

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