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19 NOV 2002

SPIN VALVE HEAD WITH DIFFUSION BARRIER

ABSTRACT OF THE DISCLOSURE

An improved spin valve sensor (300) having a diffusion barrier (348) interposed between a free layer (318) and a spacer (322) where the spacer (322) is interposed between the free layer (318) and a pinned layer (320) such that diffusion between said free layer (318) and the spacer (322) is effectively prevented during thermal treatment of the improved spin valve sensor (300) during manufacture. The diffusion barrier (348) is an amorphous material having a high GMR. In one embodiment, a high proportion of Cobalt is used to attain desired GMR.

FIG. 3