22 JUN 2004

162162

READ HEAD INCLUDING A SPIN VALVE SENSOR WITH A SPECULAR REFLECTING CAP LAYER STRUCTURE

G00002

ABSTRACT

A read head including a spin valve sensor with a specular reflecting cap layer structure is provided. The cap layer structure includes first and second cap layers (232, 234) wherein the first cap layer (232) is composed of a nonmagnetic metal and the second cap layer (234) is composed of iron oxide. Both cap layers (232, 234) are specular reflectors which reflect conduction electrons back into a spin scattering region of a spin valve sensor (74) without increasing the uniaxial anisotropy H_k of a free layer structure within the spin valve sensor (74).

Fig. 12