

MAGNETORESISTIVE HEAD AND MANUFACTURING METHOD THEREOF

[Name of Document] Abstract of the Disclosure

[Abstract]

[Object]

A constitution in which magnetic moment of a pinned layer is stable to a high external magnetic field and the magnetization direction of the pinned layer can be controlled by a magnetic field application at room temperature, and a magnetic field application are provided.

[Solving Means]

A magnetoresistive head in which a pinned layer comprises two films, i.e., a ferromagnetic film A and a ferromagnetic B anti-ferromagnetically coupled to each other and a anti-ferromagnetic coupling film for separating the two ferromagnetic films A and B, where the coercivity of the ferromagnetic film alone is 200 (Oe) or more and the coercivity of the ferromagnetic film alone is 20 (Oe) or less.

The compositions for the ferromagnetic film A and the ferromagnetic film B, when expressed by $\text{Co}_{100-y}\text{Fe}_y$ (at%) are:

ferromagnetic film A: $80 \geq y \geq 40$, and

ferromagnetic film B: $20 \geq y \geq 0$

where the material for the film in contact with the ferromagnetic film A is Ru, Ta, NiFeCr, Cu or NiFe.

[Selected Figure] Fig. 1