

ABSTRACT

The present invention relates to a perpendicular magnetic recording medium including a nonmagnetic substrate, and at least a soft magnetic layer (SUL), an alignment control layer, a magnetic recording layer and a protective layer formed on the nonmagnetic substrate; wherein the magnetic recording layer is constituted of three or more layers and includes a first magnetic recording layer, a second magnetic recording layer and a third magnetic recording layer from the substrate side, and also includes an exchange coupling reduction layer for reducing exchange coupling of both layers between the second magnetic recording layer and the third magnetic recording layer and, regarding magnetocrystalline anisotropic energy K_u of each magnetic recording layer, the first magnetic recording layer has 4×10^6 erg/cc or higher, the second magnetic recording layer has 2×10^6 erg/cc or lower and the third magnetic recording layer has 1×10^6 erg/cc or lower. The present invention also relates to a magnetic recording and reproducing apparatus using the perpendicular magnetic recording medium.



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