

ABSTRACT

[PROBLEMS] To appropriately form a DTR medium, a patterned medium, or the like in a manner less likely to cause the problems of prolonged process time and increased cost.

[MEANS FOR SOLVING PROBLEMS] A perpendicular magnetic recording layer 22 has a plurality of tracks 102 which define recording regions extending in a scanning direction of a magnetic head and which are arranged in parallel in a direction intersecting with the scanning direction. The perpendicular magnetic recording layer 22 has a guard band region 104 formed on its surface and provided with a groove portion 202 which extends along the tracks 102. In a cross-section of the perpendicular magnetic recording layer 22 taken along a plane perpendicular to the scanning direction, the maximum depth D of the groove portion 202 is in the range of 0.5 to 10 nm with reference to an average height (broken line 302) of the tracks 102 between which the groove portion 202 is interposed. The average height is obtained in the vicinity of the centers of the tracks 102 in a widthwise direction. The width W of a region of the groove portion 202 having a depth equal to or greater than 1/2 of the maximum depth is in the range of 5 to 30% of a track pitch.