

MAGNETIC RECORDING MEDIUM, MAGNETIC RECORDING MEDIUM
MANUFACTURING METHOD, AND MAGNETIC DISK

ABSTRACT

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[PROBLEMS] To improve the track density by reducing the track edge noise and sharpening the boundaries of a recording magnetic field by blocking the recording magnetic field spreading outside the recording region in magnetic recording.

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[MEANS FOR SOLVING PROBLEMS] A magnetic recording medium (10) has a substrate (12) and a perpendicular magnetic recording layer (30) formed over the substrate (12). The perpendicular magnetic recording layer (30) has a granular layer (20) in which a magnetic signal is recorded and a continuous film layer (24) magnetically coupled to the granular layer (20). The continuous

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film layer (24) has hard magnetic portions (204) formed in positions corresponding to the recording regions where magnetic signals are recorded in the granular layer (20) and magnetic shield portions (202) formed between the hard magnetic portions (204), each having a magnetization curve whose slope is larger than those of the hard magnetic portions in the region where

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the applied magnetic field is zero when the magnetization curve is measured, and each having a residual magnetic polarization smaller than those in the hard magnetic portions.

Fig. 1