ABSTRACT

MAGNETIC TRANSFER METHOD FOR A HIGH-DENSITY MAGNETIC RECORDING MEDIUM

A method of performing an accurate magnetic transfer to a high-density slave medium having two magnetic layers and utilizing antiferromagnetic coupling. The magnetic layer, which has been initially magnetized in advance, of a magnetic recording medium is conjoined with the data bearing surface of a master medium. A transfer magnetic field is applied to the conjoined body in the circumferential direction of the track of the first magnetic layer in the direction opposite the initial magnetization direction of the second magnetic layer. At this time, the thickness of the magnetic layer of the master medium, the permeability (material) of the magnetic layer, the form of the patterned magnetic layer, the separation distance between the master medium and the magnetic recording medium, etc., may be controlled so that the magnetic field of the transfer magnetic field does not effect the magnetization state of the first magnetic layer.

Figure 1

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