MAGNETIC RECORDING MEDIA AND MAGNETIC RECORDING SYSTEM USING THE SAME

ABSTRACT OF THE DISCLOSURE

A magnetic recording system includes an in-plane magnetic recording medium having a magnetic layer fabricated on a single underlayer or on a plurality of underlayers respectively fabricated on a substrate; a driver unit for driving the in-plane magnetic recording medium in a write direction; a magnetic head having a read unit and a write unit; a unit for moving the magnetic head relative to the in-plane magnetic recording medium; and a read/write signal processing unit for reading an output signal from the magnetic head and writing an input signal to the magnetic recording media, wherein the read unit of the magnetic head is a magneto-resistive head and the single underlayer or at least one of the plurality of underlayers is made of Co-containing amorphous material or fine crystal material, or is made of alloy material, the alloy material having as the main components at least one element selected from a group consisting of Cr, Mo, V and Ta and containing at least one element selected from a group consisting of B, C, P and Bi. The magnetic recording system can be realized which can read and write high density information and have high reliability.

(Figure 6)