

MAGNETIC RECORDING MEDIUM AND PROCESS FOR PRODUCING THE SAME

ABSTRACT OF THE DISCLOSURE

A magnetic recording medium comprising:

- a plastic substrate;
- a nickel oxide underlayer formed on said substrate; and
- a cobalt-containing maghemite thin film formed on said nickel oxide underlayer, containing cobalt at a molar ratio of cobalt to iron of 0.01:1 to 0.1:1, and having either a spacing of a plane (311) of not more than $2.510\text{\AA}$, a spacing of a plane (222) of not more than $2.415\text{\AA}$ or a spacing of a plane (220) of not more than $2.950\text{\AA}$,

a ratio value of an X-ray diffraction pattern peak intensity of either of the planes (311), (222) and (220) of said cobalt-containing maghemite thin film to an X-ray diffraction pattern peak intensity of the plane (400) thereof being more than 0.5.

Such magnetic recording medium suitably applicable to existent magnetic recording systems using a ring-type magnetic head and capable of using a plastic substrate for providing a magnetic recording medium for high-density recording.

Figure 1



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