ABSTRACT OF THE DISCLOSURE (FIG. 2)

"PERPENDICULAR MAGNETIC RECORDING MEDIUM AND A MAGNETIC REPRODUCING APPARATUS"

Disclosed is a magnetic recording medium having a laminate structure comprising at least a substrate, a Co alloy bias layer, a soft magnetic layer, and a magnetic recording layer. The direction of residual magnetization of the Co alloy bias layer faces one direction of its radial direction. Also, the perpendicular magnetic recording medium satisfies the relationship given below:

$$Ms_{soft} \times (t_{soft} - 40\ nm) > Ms_{soft} \times 40\ nm + Ms_{bias} \times t_{bias}$$

where, t_{bias} denotes the thickness of the cobalt alloy bias layer, Ms_{bias} denotes the saturation magnetization of the cobalt alloy bias layer, t_{soft} denotes the thickness of the soft magnetic layer, which falls within a range of between 40 nm and 200 nm, and Ms_{soft} denotes the saturation magnetization of the soft magnetic layer.