

ABSTRACT OF THE DISCLOSURE

PERPENDICULAR MAGNETIC RECORDING MEDIUM AND MANUFACTURING METHOD THEREOF

The present invention provides a perpendicular magnetic recording medium and a manufacturing method thereof with which the formation of a domain wall in a soft magnetic backing layer relative to a large external magnetic field can be suppressed more favorably than in the related art, the H_k of the backing layer can be further improved, and productivity can be increased. In the perpendicular magnetic recording medium and the manufacturing method thereof, a perpendicular magnetic recording medium is formed by laminating at least a soft magnetic backing layer, a non-magnetic underlayer, a magnetic recording layer, and a protective film in succession on a non-magnetic substrate, the backing layer, underlayer, magnetic recording layer, and protective film are formed by a vapor deposition method, the backing layer is a laminated body comprising a soft magnetic lower backing layer, a non-magnetic metal layer, and a soft magnetic upper backing layer, and the non-magnetic metal layer is formed by forming a metal layer and then subjecting the metal layer to surface exposure processing using a nitrogen-containing gas containing 0.1 to 100 at% nitrogen.

Selected Drawing: FIG. 1