

Abstract

Method for producing multilayer film perpendicular magnetic recording medium

The magnetic recording medium of the present invention comprises an underlayer having an hcp crystal structure and a magnetic layer produced by a multilayer lamination of Co/Pt or the like. The deposition rate of the underlayer is equal to or lower than 0.7 nm/second. The magnetic layer is added with Si oxide at 1 to 10mol%. The present method includes a step for subjecting the surface of the underlayer to Ar gas mixed with oxygen of a mass/flow rate ratio of 1% to 10% under a gas pressure of 0.1 to 10 Pa for 1 to 10 second(s). The magnetic recording medium may include an orientation control layer and a soft magnetic backing layer. K_u , K_{u1} , and K_{u2} are controlled to provide both of thermal stability and easy writing.

Selected Drawing: Fig. 1