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## Abstract

### Magnetic recording medium

5        A magnetic recording medium uses a substrate 1 of polycarbonate or polyolefin resin. A magnetic layer 4 has a granular structure consisting of ferromagnetic crystalline grains with hexagonal closest packed structure and nonmagnetic grain boundary region of mainly oxide intervening between the ferromagnetic  
10    crystalline grains. An underlayer 2 has a body centered cubic structure. A nonmagnetic intermediate layer 3 with a hexagonal closest packed structure is provided in between and is composed of a nonmagnetic metallic substance selected from Ru, Os, and Re with the predominant alignment plane at hcp (100). The degree of  
15    mismatching  $\Delta a$  is 6 %, and  $\Delta c$  is 4 %, and the ratio  $\Delta a/\Delta c$  is at least 1.5; wherein  $\Delta a$  is the mismatching between a-axis lattice constants of the ferromagnetic crystalline grain and the nonmagnetic metallic substance composing the nonmagnetic intermediate layer 3, and  $\Delta c$  is the mismatching between c-axis lattice constants in the magnetic  
20    layer and the intermediate layer.

Selected drawing      Figure 1