

ABSTRACT

PERPENDICULAR MAGNETIC RECORDING MEDIUM

To provide a perpendicular magnetic recording medium comprising a magnetic recording layer which may be expected to lower T_c and has a desired thickness with preservation of usual magnetic properties. The magnetic recording medium comprises at least a nonmagnetic substrate and a magnetic recording layer, the magnetic recording layer consists of a first magnetic recording layer or a plurality of layers comprising at least the first magnetic recording layer and a second magnetic recording layer, the first magnetic recording layer has a granular structure including a first magnetic crystal grain and a first nonmagnetic crystal grain boundary, the first magnetic crystal grain consists of an ordered alloy having Fe, Pt and Rh, the first nonmagnetic crystal grain boundary consists of carbon, boron or a combination thereof, the second magnetic recording layer has a granular structure including a second magnetic crystal grain and a second nonmagnetic crystal grain boundary, the second magnetic crystal grain consists of an FePt ordered alloy or an ordered alloy having Fe, Pt and Rh, and the second nonmagnetic crystal grain boundary comprises carbon.

Fig. 1