[CLAIMS]

[Claim 1] A perpendicular magnetic recording medium comprising at least a nonmagnetic substrate and a magnetic recording layer, wherein:

said magnetic recording layer has a granular structure including a first magnetic crystal grain and a first nonmagnetic crystal grain boundary surrounding said first magnetic crystal grain, said first magnetic crystal grain consists of an ordered alloy having Fe, Pt and Rh, and said first nonmagnetic crystal grain boundary is selected from the group consisting of carbon, boron and a combination thereof.

[Claim 2] A perpendicular magnetic recording medium comprising at least a nonmagnetic substrate and a magnetic recording layer, wherein:

said magnetic recording layer is composed of a plurality of layers comprising at least a first magnetic recording layer and a second magnetic recording layer;

said first magnetic recording layer has a granular structure including a first magnetic crystal grain and a first nonmagnetic crystal grain boundary surrounding said first magnetic crystal grain, said first magnetic crystal grain consists of an ordered alloy having Fe, Pt and Rh, and said first nonmagnetic crystal grain boundary is selected

from the group consisting of carbon, boron and a combination thereof; and

said second magnetic recording layer has a granular structure including a second magnetic crystal grain and a second nonmagnetic crystal grain boundary surrounding said second magnetic crystal grain, said second magnetic crystal grain consists of an FePt ordered alloy or an ordered alloy having Fe, Pt and Rh, and said second nonmagnetic crystal grain boundary comprises carbon.

[Claim 3] The perpendicular magnetic recording medium according to claim 2, wherein said magnetic recording layer consists of said first magnetic recording layer and said second magnetic recording layer, and has said second magnetic recording layer at the substrate side and said first magnetic recording layer thereon, and wherein said first magnetic recording layer consists of a granular magnetic material consisting of FePtRh-X, where X is_ selected from the group consisting of carbon, boron and a combination thereof, and said second magnetic recording layer consists of a granular magnetic material that is FePt-C or FePtRh-C.

[Claim 4] The perpendicular magnetic recording medium according to claim 1 or 2, wherein said ordered alloy having Fe, Pt and Rh in claim 1 or 2, and FePtRh in said first and second magnetic recording layers in claim 3 is an $L1_0$ type ordered alloy.