CLAIMS

1. A magnetic recording medium for heat-assisted magnetic recording, comprising:

a non-magnetic substrate; and

a magnetic recording layer, wherein

the magnetic recording layer includes a lower magnetic recording layer and an upper magnetic recording layer,

the lower magnetic recording layer has a granular structure including magnetic crystal grains and a non-magnetic portion that surrounds the magnetic crystal grains and is formed from a material mainly composed of carbon, and

the upper magnetic recording layer has a granular structure including magnetic crystal grains and a non-magnetic portion that surrounds the magnetic crystal grains and is formed from a material ~~different from that of the non-magnetic portion of the lower magnetic recording layer~~ selected from the group consisting of silicon nitride, titanium oxide, and titanium nitride.

~~2. The magnetic recording medium for heat-assisted magnetic recording according to claim 1, wherein~~

~~the non-magnetic portion of the upper magnetic recording layer is formed from a material selected from the group consisting of silicon oxide, silicon nitride, titanium oxide, and titanium nitride.~~

2 ~~3~~. The magnetic recording medium for heat-assisted magnetic recording according to claim 1 ~~or 2~~, wherein

the magnetic crystal grains of the lower magnetic recording layer and the magnetic crystal grains of the upper magnetic recording layer are each formed from an ordered alloy.

3 ~~4.~~ The magnetic recording medium for heat-assisted magnetic recording according to claim 2 ~~3~~, wherein

the ordered alloy is an alloy containing at least one element selected from the group consisting of Fe, Co, and Ni, and at least one element selected from the group consisting of Pt, Pd, Au, and Ir.

4. ~~5~~ The magnetic recording medium for heat-assisted magnetic recording according to claim 3 ~~4~~, wherein

the ordered alloy is selected from the group consisting of FePt, CoPt, FePd, and CoPd.

5 ~~6.~~ The magnetic recording medium for heat-assisted magnetic recording according to any one of claims 1 to 4 ~~5~~, further comprising, between the non-magnetic substrate and the magnetic recording layer, one or a plurality of layers selected from the group consisting of a heat sink layer and a seed layer.

6 ~~7.~~ The magnetic recording medium for heat-assisted magnetic recording according to any one of claims 1 to 5 ~~6,~~ further comprising:

a protective layer provided on the magnetic recording layer.