

[Document's name] Abstract of the Disclosure

[Abstract]

[Problem] A thermally assisted magnetic recording system is provided to achieve excellent thermal resistance and low noise.

[Means of solution] A magnetic recording medium is used, in which the magnetic intergrain exchange coupling is large to let the magnetization be thermally stable by coupling the magnetic grains constituting the recording layer at room temperature (the temperature maintaining the magnetization) and reduced by heating during recording to let the recording magnetization transition slope become steep. Parameter A normalizing the slope around the coercivity of the MH-loop of the medium is  $1.5 \leq A < 6.0$  at room temperature, and it becomes approximately 1.0 with heating.

[Selected Drawing] FIG. 1