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ABSTRACT

MAGNETIC ALLOY, MAGNETIC RECORDING MEDIUM AND METHOD OF PRODUCING THE SAME, TARGET FOR FORMING MAGNETIC FILM, AND MAGNETIC RECORDING DEVICE

An object of the present invention is to provide a magnetic recording medium comprising a magnetic film, which has a high normalized coercive force, suppresses thermal agitation and also has thermally stable magnetic characteristics, an alloy, and a method of producing an alloy and the magnetic recording medium, and a target for forming a magnetic film.

The present invention provides a magnetic alloy consisting essentially of cobalt (Co), chromium (Cr), and germanium (Ge), the composition of said magnetic alloy being represented by the general formula: $\text{Co}_x\text{Cr}_y\text{Ge}_z$ where x , y and z , which represent the composition ratio, satisfy the relationships: $78 \leq x \leq 87$, $2.5 \leq y \leq 14.5$, $3.5 \leq z \leq 15$, and $x + y + z = 100$ (provided that x , y , and z represent the composition ratio in terms of atomic %). Furthermore, the present invention may provide a magnetic alloy with a composition represented by the formulas: CoCrGeT (T represents one or more elements of Ta, Si, Nb, B, Ni and Pt) or a composition represented by the formula: CoCrGeT' (T' represents one or more elements of Ta, B, and Pt).



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