

CrTi-BASED ALLOY AND SPUTTERING TARGET MATERIAL,
PERPENDICULAR MAGNETIC RECORDING MEDIUM, AND
PRODUCTION METHODS THEREOF

ABSTRACT

In accordance with the present invention, there is provided a CrTi-based alloy or a sputtering target material, comprising
5 35-65 at% of Ti and the balance Cr and unavoidable impurities;
and production methods thereof. The CrTi-based alloy or target
material has an intensity ratio $[I(\text{Cr}_2\text{Ti})/I(\text{Cr})]$ of an X-ray
diffraction intensity $[I(\text{Cr}_2\text{Ti})]$ of $\text{Cr}_2\text{Ti}(311)$ to an X-ray
diffraction intensity $[I(\text{Cr})]$ of $\text{Cr}(110)$, of 0.50 or less.
10 According to the present invention, it is possible to reduce
compounds in a CrTi-based alloy and a sputtering target
material, and thereby to suppress the generation of particles
during sputtering to improve the product yield of a sputtered
film.