

ABSTRACT

An object of the present invention is to reduce particles generated in sputtering, and in order to achieve such an object, there is provided a sputtering target material including in at. %:

5 10 to 50% of B; and the balance of at least one of Co and Fe, and unavoidable impurities, in which the intensity ratio $[I((\text{CoFe})_3\text{B})/I((\text{CoFe})_2\text{B})]$ of the X-ray diffraction intensity $[I((\text{CoFe})_3\text{B})]$ of $(\text{CoFe})_3\text{B}$ (121) to the X-ray diffraction intensity $[I((\text{CoFe})_2\text{B})]$ of $(\text{CoFe})_2\text{B}$ (200), the intensity ratio $[I(\text{Co}_3\text{B})/I(\text{Co}_2\text{B})]$ of the X-ray diffraction intensity $[I(\text{Co}_3\text{B})]$ of Co_3B (121) to the X-ray diffraction intensity $[I(\text{Co}_2\text{B})]$ of Co_2B (200), or the intensity ratio $[I(\text{Fe}_3\text{B})/I(\text{Fe}_2\text{B})]$ of the X-ray diffraction intensity $[I(\text{Fe}_3\text{B})]$ of Fe_3B (121) to the X-ray diffraction intensity $[I(\text{Fe}_2\text{B})]$ of Fe_2B (200) is 1.50 or less.

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FIGURE 1