

ABSTRACT

FERROMAGNETIC SPUTTERING TARGET WITH
LESS PARTICLE GENERATION

Provided is a nonmagnetic-material-dispersed sputtering target having a metal composition comprising 20 mol% or less of Cr and the balance of Co. The target has a structure including a phase (A) in which a nonmagnetic oxide material is dispersed in the basis metal, and a metal phase (B) containing 40 mol% or more of Co; the area proportion of grains of the nonmagnetic oxide material in the phase (A) is 50% or less; and when a minimum-area rectangle circumscribed to the phase (B) is assumed, the proportion of the circumscribed rectangle having a short side of 2 to 300 μm is 90% or more of all of the phases (B). The ferromagnetic sputtering target can suppress particle generation during sputtering and can improve leakage magnetic flux to allow stable electrical discharge with a magnetron sputtering apparatus.

Fig. 1