

SOFT MAGNETIC ALLOY FOR MAGNETIC RECORDING,
SPUTTERING TARGET MATERIAL, AND MAGNETIC RECORDING
MEDIUM

ABSTRACT

There is provided a soft magnetic alloy for a thermally assisted magnetic recording medium, excellent in saturation magnetic flux density, amorphous property, crystallization temperature and corrosion resistance; and a sputtering target material and a magnetic recording medium therewith. The alloy comprises in at%: Fe: 0 to 70%; (A) 5 to 20% of one or two or more elements selected from the group consisting of Ti, Zr, and Hf; (B) 0 to 30% of one or two or more elements selected from the group consisting of Cr, Mo and W; (C) 0 to 30% of one or two or more elements selected from the group consisting of V, Nb, and Ta; (D) 0 to 30% of one or two elements selected from the group consisting of Ni and Mn; (E) 0 to 5% of one or two elements selected from the group consisting of Al and Cu; and (F) 0 to 10% of one or two or more elements selected from the group consisting of Si, Ge, P, B, and C; and the balance Co and unavoidable impurities.