ALLOY FOR SOFT MAGNETIC FILM LAYERS, WHICH HAS LOW SATURATION MAGNETIC FLUX DENSITY AND IS TO BE USED IN MAGNETIC RECORDING MEDIUM, AND SPUTTERING ~~TERGET~~ TARGET MATERIAL

ABSTRACT

There is provided an alloy for a soft magnetic film layer used in a magnetic recording medium and having a low saturation magnetic flux density, and a sputtering target material. The alloy comprises one or more selected from the group consisting of Y, Ti, Zr, Hf, V, Nb, Ta, Cr, Mo, W, Mn, Ni, Cu, Al, B, C, Si, P, Zn, Ga, Ge, and Sn, and the balance Co and Fe; and

in at%, the following formulae (1) to (3):

(1) $0.50 \leq Fe\%/(Fe\%+Co\%) \leq 0.90$;

(2) $5 \leq TAM \leq 25$; and

(3) $15 \leq TAM+TNM \leq 25$

are satisfied,

with the proviso that TAM and TNM are:

$TAM=Y\%+Ti\%+Zr\%+Hf\%+V\%+Nb\%+Ta\%+B\%/2$; and

$TNM=Cr\%+Mo\%+W\%+Mn\%+Ni\%/3+Cu\%/3+Al\%+C\%+Si\%+P\%+Zn\%+Ga\%+Ge\%+Sn\%$,

respectively.

FIG.1