

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

ABSTRACT

There is provided a soft magnetic alloy for magnetic recording comprising in at. %: (A) 0.5% or more of one or two or more of
5 elements selected from the group consisting of Ta, Nb and V;
(B) 0.5% or more of one or two or more of elements selected
from the group consisting of Cr, Mo and W; (C) 0 to 5% of one
or two or more of elements selected from the group consisting
of Ti, Zr and Hf; (D) 0 to 30% of one or two of elements
10 selected from the group consisting of Ni and Mn; (E) 0 to 5% of
one or two of elements selected from the group consisting of Al
and Cu; and (F) 0 to 10% of one or two or more of elements
selected from the group consisting of Si, Ge, P, B and C; and the
balance Co and Fe and unavoidable impurities. In the alloy, a
15 ratio of Fe:Co is 10:90 to 70:30; and the total amount of the
(A) group element(s), the (B) group element(s) and the (C)
group element(s) is 10 to 30% of the alloy. The alloy of the
present invention is superior in amorphous properties, hardness
and corrosion resistance and is suitable as a soft magnetic alloy
20 for a perpendicular magnetic recording medium.