

ABSTRACT OF THE DISCLOSURE

Co-Fe-Nb-based Sputtering Target

Provided is a Co-Fe-Nb-based sputtering target, which includes
5 cobalt, iron, an active element, a first additive, and a second additive. The
active element includes niobium, the first additive may include tungsten
or molybdenum, and the second additive may include magnesium, carbon,
boron, chromium, calcium, or any combinations thereof. Based on the
total amount of the Co-Fe-Nb-based sputtering target, the total amount of
10 the active element is no more than 20 at%, the total amount of the active
element and the first additive is no more than 25 at%, and the total
amount of the second additive is no more than 0.5 at%. With said
composition, the ratio of niobium oxide particles to the surface of the
Co-Fe-Nb-based sputtering target can be effectively reduced to 35
15 counts/mm², such that the problems of arcing and splash during
sputtering can be avoided.

Fig. 1A