

SPUTTERING TARGET AND SPUTTERING TARGET ASSEMBLY

ABSTRACT

A sputtering target, comprising:

(1) Fe, (2) Pt, (3) one or more elements selected from Ag, Au, B, Co, Cr, Cu, Ga, Ge, Mn, Mo, Nb, Ni, Pd, Re, Rh, Ru, Si, Sn, Ta, W, V, and Zn, and (4) the balance, wherein

an atomic ratio of the (1) Fe to the (2) Pt is 34 to 55 at%,

a total concentration of the (1) Fe and the (2) Pt is 50 mol % or more,

a content of the elements in (3) is 0.5 to 15 mol% in total,

a remainder of (4) is an oxide which may selectively contain impurities, a volume ratio of the oxide is 40 vol.% or more, and

an average particle area (average size) of an oxide phase calculated using ImageJ with a SEM image at a field magnification of 3000 times is $4.0 \mu\text{m}^2$ or less.

FIG. 1