

ABSTRACT

A Co-based alloy structure includes: a matrix phase (γ phase) having an fcc structure and containing mainly Co; and a precipitated phase (γ' phase) that contains an
5 intermetallic compound having an $L1_2$ fcc structure, such as $\text{Co}_3(\text{Al}, \text{W})$ in terms of an atomic ratio, and that is dispersively precipitated in the matrix phase. The Co-based alloy structure is configured to include the γ' phase having a grain size of 10 nm to 1 μm , and grains of the γ' phase uniformly disposed and precipitated, and to have a precipitation amount of 40 vol% to 85 vol%.