

Title (en)

R-T-B ALLOY, METHOD FOR PRODUCING THE SAME, FINE POWDER FOR R-T-B RARE EARTH PERMANENT MAGNET, AND R-T-B RARE EARTH PERMANENT MAGNET

Title (de)

R-T-B LEGIERUNG, HERSTELLUNGSVERFAHREN DAFÜR, FEINES PULVER FÜR EINEN PERMANENTEN R-T-B-SELTENERDMAGNETEN, UND PERMANENTER R-T-B-SELTENERDMAGNET

Title (fr)

ALLIAGE R-T-B, SON PROCEDE DE FABRICATION, POUDRE FINE POUR UN AIMANT PERMANENT DE TERRES RARES R-T-B ET AIMANT PERMANENT DE TERRES RARES R-T-B

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Application

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Abstract (en)

An object of the present invention is to provide an R-T-B type alloy (wherein R is at least one element selected from Sc, Y, La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Ho, Er, Tm, Yb, and Lu; T is a transition metal that contains 80% by mass or more of Fe; and B is one that contains 50% by mass or more of boron (B) and also contains at least one element of C and N within a range from 0 to less than 50% by mass) that contains at least Dy, as a raw material for a rare earth-based permanent magnet having excellent magnetic characteristics, and the R-T-B type alloy provided in the present invention includes a main phase such as an R₂T₁₄B phase for exhibiting magnetic properties; an R-rich phase that is relatively enriched with R compared to the overall alloy compositional ratio; and a Dy-rich region that is formed close to the R-rich phase and relatively enriched with Dy compared to the compositional ratio.

IPC 8 full level

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