

Abstract

HEAT-RESISTANT ALLOY, AND REACTION TUBE

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The present invention provides a heat-resistant alloy and a reaction tube having excellent oxidation resistance, excellent mechanical properties such as tensile ductility, and weldability. A heat-resistant alloy of the present invention comprises, in terms of % by mass, C: 0.35% to 0.7%, Si: more than 0% and 1.5% or less, Mn: more than 0% and 2.0% or less, Cr: 22.0% to 40.0%, Ni: 25.0% to 48.3%, Al: 1.5% to 4.5%, Ti: 0.01% to 0.6%, and the balance being Fe and inevitable impurities, wherein when $P_a = -11.1 + 28.1 \times C + 29.2 \times Si - 0.25 \times Ni - 45.6 \times Ti$, and $Y_a = -13.75 \times Al + 63.75$, $P_a < Y_a$.

[Selected Drawing] Figure 1