

Title (en)

TITANIUM ALLOY EXCELLENT IN DUCTILITY, FATIGUE STRENGTH AND RIGIDITY AND METHOD FOR PRODUCING THE SAME

Title (de)

TITANLEGIERUNG MIT AUSGEZEICHNETER DUKTILITÄT, DAUERFESTIGKEIT UND STEIFIGKEIT UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

ALLIAGE DE TITANE PRESENTANT UNE EXCELLENTE DUCTILITE, RESISTANCE A LA FATIGUE ET RIGIDITE ET SON PROCEDE DE PRODUCTION

Publication

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Application

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Priority

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Abstract (en)

A titanium alloy is provided wherein metal boride is uniformly crystallized and/or precipitated in the matrix. The heating temperature in the finishing hot working is set smaller than the beta transus temperature by not less than 10 DEG C, thereby causing the matrix to include an equiaxial alpha structure in a rate of not less than 40 vol %. This titanium alloy has excellent properties, i.e., high rigidity, ductility and fatigue strength, which are all required for structural components, and therefore can be widely applied to a mechanical component such as an engine of an automobile, a structural component in an aircraft as well as a component for a high speed rail vehicle.

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Cited by

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