

Title (en)
TITANIUM-BASED ALLOY AND ARTICLE MANUFACTURED FROM SAME

Title (de)
TITANBASIERTE LEGIERUNG UND DARAUS HERGESTELLTER ARTIKEL

Title (fr)
ALLIAGE À BASE DE TITANE ET ARTICLE FAIT DE CELUI-CI

Publication
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Application
EP 22873266 A 20220919

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Abstract (en)
The invention relates to nonferrous metallurgy, namely to the development of low-alloyed titanium alloys characterized by high-temperature strength and thermal stability, and can be used for manufacture of articles intended for long-term operation at high temperatures, namely components of exhaust systems of vehicle engines. Titanium alloy containing aluminum, molybdenum, silicon, oxygen, nitrogen, iron, hydrogen, with the alloy components taken in the following ratio, % wt.:Aluminium1.5 to 3.0Molybdenum0.1 to 0.5Silicon0.1 to 0.6Iron0.2 maxOxygen0.15 maxCarbon0.1 maxNitrogen0.03 maxHydrogen0.015 maxTitanium and inevitable impurities - balance,which in one embodiment additionally contains copper 0.5 to 1.5% wt., and article made thereof.A technical result of the embodiment of invention is the production of titanium alloy characterized by a combination of high mechanical and performance properties, including a higher level of creep resistance, with capability of cold forming.

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