

Title (en)
STEAM TURBINE ROTOR MATERIALS FOR HIGH-TEMPERATURE USE

Title (de)
DAMPFTURBINEROTORMATERIALEN FÜR HOCHTEMPERATUR BENUTZUNG

Title (fr)
MATERIAUX POUR ROUE DE TURBINE A VAPEUR, DESTINES A ETRE UTILISES A DES TEMPERATURES ELEVEES

Publication
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Application
EP 97947913 A 19971212

Priority
• JP 9704580 W 19971212
• JP 136097 A 19970108
• JP 22324397 A 19970820

Abstract (en)
[origin: WO9830727A1] (1) A steam turbine rotor material for high-temperature use which comprises 0.05 to 0.13 wt.% carbon, 0.01 to 0.1 wt.% silicon, 0.01 to 1 wt.% manganese, 9.5 to 11 wt.% chromium, 0.1 to 0.8 wt.% nickel, 0.1 to 0.3 wt.% vanadium, 0.01 to 0.2 wt.% niobium and tantalum, 0.01 to 0.1 wt.% nitrogen, 0.01 to 0.5 wt.% molybdenum, 0.9 to 3.5 wt.% tungsten, 0.1 to 4 wt.% cobalt, 0.01 to 0.2 wt.% hafnium, inevitable impurities, and iron. (2) A steam turbine rotor material for high-temperature use having the same composition as the material (1) except that nickel is not contained. (3) A steam turbine rotor material for high-temperature use having the same composition as the material (1) or (2) except that it further contains 0.001 to 0.01 wt.% boron. (4) A steam turbine rotor material for high-temperature use having the same composition as the material (1), (2), or (3) except that it further contains 0.005 to 0.5 wt.% neodymium in place of part or the whole of the hafnium and/or part of the iron

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C22C 38/00; **F01D 25/00**

IPC 8 full level
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Citation (search report)
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• [Y] PATENT ABSTRACTS OF JAPAN vol. 017, no. 247 (C - 1059) 18 May 1993 (1993-05-18)
• See references of WO 9830727A1

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