

Title (en)

A method of heat treating titanium aluminide

Title (de)

Verfahren zur Wärmebehandlung von TiAl-Legierungen

Title (fr)

Procédé pour le traitement thermique des alliages de TiAl

Publication

EP 1378582 B1 20041020 (EN)

Application

EP 03253539 A 20030604

Priority

GB 0215563 A 20020705

Abstract (en)

[origin: EP1378582A1] A gamma titanium aluminide alloy consisting of 48at% aluminium, 2at% chromium, 2at% niobium and the balance titanium plus incidental impurities was heat treated according to the present invention. The gamma titanium aluminide alloy has an alpha transus temperature $T_{\alpha} = 1360$ DEG C. The gamma titanium aluminide alloy was heated to a temperature $T_1 = 1380$ DEG C and was held at $T_1 = 1380$ DEG C for 1 hour. The gamma titanium aluminide alloy was oil cooled. The gamma titanium aluminide alloy was heated to a temperature $T_2 = 1320$ DEG C and was held at $T_2 = 1320$ DEG C for 2 hours. The gamma titanium aluminide alloy was air cooled to ambient temperature. The gamma titanium aluminide alloy has a fine duplex microstructure comprising differently orientated alpha plates in a massively transformed gamma matrix. <IMAGE>

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IPC 8 full level

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CPC (source: EP US)

C22F 1/04 (2013.01 - EP US); **C22F 1/183** (2013.01 - EP US)

Cited by

EP1889939A3; EP1507017A1; EP1813691A1; CN114150242A; US7704339B2

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