

Title (en)  
Heat-resistant material.

Title (de)  
Hochwarmfester Werkstoff.

Title (fr)  
Matériau résistant aux températures élevées.

Publication  
**EP 0581204 A1 19940202 (DE)**

Application  
**EP 93111790 A 19930723**

Priority  
DE 4224867 A 19920728

Abstract (en)  
The invention relates to a multi-phase heat-resistant material based on an inter-metallic alloy of the type gamma -TiAl, which is intended in particular for use in heat engines such as combustion engines, gas turbines, aircraft engines, having an aluminium content from 30 to 40 atom-% and a silicon content from 0.1 to 20 atom-% and a niobium content from 0.1 to 15 atom-%, the remainder being titanium.

Abstract (de)  
Die Erfindung betrifft einen mehrphasigen hochwarmfesten Werkstoff mit einer intermetallischen Basislegierung vom Typ  $\gamma$ -TiAl, der insbesondere für den Einsatz in Wärmekraftmaschinen, wie Verbrennungsmotoren, Gasturbinen, Flugtriebwerken vorgesehen ist, mit einem Gehalt an Aluminium von 30 bis 40 At-% sowie an Silicium von 0,1 bis 20 At-% und einem Gehalt an Niob von 0,1 bis 15 At-%, Rest Titan.

IPC 1-7  
**C22C 14/00**; **C22C 21/00**

IPC 8 full level  
**C22C 1/00** (2006.01); **C22C 14/00** (2006.01); **C22C 21/00** (2006.01); **C22C 21/02** (2006.01)

CPC (source: EP US)  
**C22C 14/00** (2013.01 - EP US); **C22C 21/00** (2013.01 - EP US); **C22C 21/02** (2013.01 - EP US); **F05C 2201/021** (2013.01 - EP US)

Citation (search report)

- [X] EP 0455005 A1 19911106 - ASEA BROWN BOVERI [CH]
- [X] US 5076858 A 19911231 - HUANG SHYH-CHIN [US]
- [X] US 4916028 A 19900410 - HUANG SHYH-CHIN [US]
- [XP] EP 0521516 A1 19930107 - NIPPON STEEL CORP [JP]
- [XP] US 5149497 A 19920922 - MCKEE DOUGLAS W [US], et al
- [A] EP 0406638 A1 19910109 - GEN ELECTRIC [US]
- [A] EP 0405134 A1 19910102 - GEN ELECTRIC [US]
- [A] US 4836983 A 19890606 - HUANG SHYH-CHIN [US], et al
- [A] DE 4001799 A1 19900726 - HAGISHITA SHIRO [JP]
- [X] PATENT ABSTRACTS OF JAPAN vol. 16, no. 351 (C-968)29. Juli 1992 & JP-A-04 107233 ( NISSAN MOTOR CO LTD ) 8. April 1992

Cited by  
EP0634496A1; US5514333A; EP3333281A1; US10590527B2; WO9630552A1

Designated contracting state (EPC)  
CH DE FR GB LI NL SE

DOCDB simple family (publication)  
**EP 0581204 A1 19940202**; DE 4224867 A1 19940203; JP H06184684 A 19940705; US 5393356 A 19950228

DOCDB simple family (application)  
**EP 93111790 A 19930723**; DE 4224867 A 19920728; JP 18418293 A 19930726; US 9870593 A 19930728