

Title (en)
Ni-based alloys.

Title (de)
Legierung auf Nickelbasis.

Title (fr)
Alliages à base de nickel.

Publication
EP 0639652 A1 19950222 (EN)

Application
EP 94305546 A 19940727

Priority
JP 18462893 A 19930727

Abstract (en)
A Ni-based alloy consisting of, by weight: (a) Cr 5 to 41% (b) Al 8 to 16% (c) Fe 5 to 30% (except that when both Cr is 28 to 31% and Al is 10 to 11%, Fe is optionally present in an amount up to 30%) (d) optionally, Ti up to 5% (e) optionally, B up to 0.1% (f) optionally, at least one element selected from the elements of Groups 2A and 3A of the Periodic Table, the lanthanoid elements (including Y), Zr, Hf and Si in an amount in the range 0.05 to 2.5% (g) remainder Ni and unavoidable impurities. This Ni-based alloy can have high-temperature strength, good oxidation resistance and excellent resistance to sulfate corrosion. It may also be hardly affected by the thermal history and have excellent strength stability and hardness stability. Furthermore, the alloy may have a relatively low specific gravity and be advantageous in specific strength.

IPC 1-7
C22C 19/05; **C22C 19/00**

IPC 8 full level
C22C 19/05 (2006.01)

CPC (source: EP)
C22C 19/058 (2013.01)

Citation (search report)

- [X] US 4054469 A 19771018 - JACKSON MELVIN R
- [X] US 4731221 A 19880315 - LIU CHAIN T [US]
- [X] US 4214042 A 19800722 - WILSON LLOYD W [US]
- [A] DE 2528241 A1 19770113 - CABOT CORP
- [A] US 3795510 A 19740305 - DAVIES R, et al
- [A] HERCHENROEDER, LAI AND RAO.: "A new, wrought, heat resistant Ni-Cr-Al-FeY alloy", JOURNAL OF METALS, vol. 35, no. 11, November 1983 (1983-11-01), pages 16 - 22
- [A] TAWANCY: "Development of Al₂O₃ scale during oxidation of a wrought nickel-base alloy.", JOURNAL OF MATERIALS SCIENCE, vol. 28, no. 2, 15 January 1993 (1993-01-15), pages 561 - 568

Cited by
US5851318A; US2015017729A1; CN115233071A

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 0639652 A1 19950222; JP H0741893 A 19950210

DOCDB simple family (application)
EP 94305546 A 19940727; JP 18462893 A 19930727