

Title (en)  
NiFe binder with universal application

Title (de)  
NiFe-Binder mit universeller Einsetzbarkeit

Title (fr)  
Liant NiFe ayant une application universelle

Publication  
**EP 2527480 A1 20121128 (DE)**

Application  
**EP 11167901 A 20110527**

Priority  
EP 11167901 A 20110527

Abstract (en)  
The process comprises providing a dispersion comprising a composition, which comprises a hardness carrier and a base binder alloy comprising nickel (70-90 wt.%), iron (7-34 wt.%), cobalt (less than 5 wt.%) and molybdenum (less than 0.02 wt.%), in a solvent, grinding the dispersion, producing a powder by drying the dispersion, preparing powder compacts by pressing or by extrusion of the powder using plasticizing agents, and sintering the powder compacts. The base binder alloy has a weight ratio of iron:nickel of 1:4-1:7, and is present as an alloy powder. An independent claim is included for a sintered composite material.

Abstract (de)  
Die vorliegende Erfindung betrifft ein Verfahren zur Herstellung eines Verbundwerkstoffs umfassend das Sintern einer Zusammensetzung enthaltend a) mindestens einen Hrtetrger und b) einer Basisbindelegierung, umfassend  $\pm$  ) 66 bis 93 Gew.-% Nickel, <sup>2</sup> ) 7 bis 34 Gew.-% Eisen und <sup>3</sup> ) 0 bis 9 Gew.-% Kobalt, wobei sich die Gewichtsanteile der Basisbindelegierung zu 100 Gew.-% ergnzen.

IPC 8 full level  
**B22F 1/105** (2022.01); **C22C 29/00** (2006.01); **C22C 29/06** (2006.01)

CPC (source: EP KR US)  
**B22F 1/105** (2022.01 - EP KR US); **C22C 19/00** (2013.01 - EP US); **C22C 29/00** (2013.01 - EP KR US); **C22C 29/005** (2013.01 - EP US); **C22C 29/06** (2013.01 - EP KR US); **C22C 29/067** (2013.01 - EP US); **C22C 38/08** (2013.01 - EP US)

Citation (applicant)  

- WO 0212896 A1 20020214 - AVIVA BIOSCIENCES CORP [US]
- EP 1488020 B1 20060802 - WIDIA GMBH [DE]
- WO 2010046224 A2 20100429 - STARCK H C GMBH [DE], et al
- WO 2010046224 A2 20100429 - STARCK H C GMBH [DE], et al
- L.PRAKASH, B.GRIES, PROCEEDINGS 17TH PLANSEE SEMINAR, vol. 2, 2009
- "Proceedings International Conference on Tungsten", REFRACTORY AND HARD METALS, 2008
- B.GRIES, PROCEEDINGS EUROPAN 2009 COPENHAGEN, 10 October 2009 (2009-10-10)

Citation (search report)  

- [X] GB 1330218 A 19730912 - CHROMALLOY AMERICAN CORP
- [XA] DE 1938074 B1 19701203 - DEUTSCHE EDELSTAHLWERKE AG
- [A] WO 02052054 A1 20020704 - SECO TOOLS AB [SE], et al
- [A] US 2005117984 A1 20050602 - EASON JIMMY W [US], et al
- [A] DE 102007004937 A1 20080731 - STARCK H C GMBH [DE]

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**EP 2527480 A1 20121128**; **EP 2527480 B1 20170503**; CN 103562422 A 20140205; CN 103562422 B 20160210; ES 2628422 T3 20170802; IL 229654 A0 20140130; IL 229654 B 20181231; JP 2014519553 A 20140814; JP 6124877 B2 20170510; KR 102079325 B1 20200219; KR 20140032414 A 20140314; PL 2527480 T3 20171229; RU 2013158048 A 20150710; RU 2623545 C2 20170627; US 11207730 B2 20211228; US 2014086782 A1 20140327; US 2018029118 A1 20180201; US 9821372 B2 20171121; WO 2012163804 A1 20121206

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