

Title (en)  
NANOSIZED INTERMETALLIC POWDERS

Title (de)  
INTERMETALLISCHES PULVER IM NANOGRÖSSENBEREICH

Title (fr)  
POUDRES INTERMETALLIQUES NANOMETRIQUES

Publication  
**EP 1244530 A4 20091216 (EN)**

Application  
**EP 00973743 A 20001023**

Priority  
• US 0029105 W 20001023  
• US 16086499 P 19991022

Abstract (en)  
[origin: WO0130520A1] Nanoparticles of intermetallic alloys such as FeAl, Fe<sub>3</sub>Al, NiAl, TiAl and CuZn exhibit a wide variety of interesting structural, magnetic, catalytic, resistive and electronic, and bar coding applications. The nanosize powders can be used to make structural parts having enhanced mechanical properties, magnetic parts having enhanced magnetic saturation, catalyst materials having enhanced catalytic activity, thick film circuit elements having enhanced resolution, and screen printed images such as magnetic bar codes having enhanced magnetic properties. In contrast to bulk FeAl materials which are nonmagnetic at room temperature, the FeAl nanoparticles exhibit magnetic properties at room temperature.

IPC 1-7  
**B22F 1/00**

IPC 8 full level  
**B22F 1/054** (2022.01); **C22C 1/04** (2006.01); **G06K 1/12** (2006.01); **G06K 19/12** (2006.01); **H01F 1/00** (2006.01); **H01F 1/44** (2006.01); **H05B 3/12** (2006.01); **H05K 1/09** (2006.01)

CPC (source: EP US)  
**B22F 1/054** (2022.01 - EP US); **B82Y 25/00** (2013.01 - EP); **B82Y 30/00** (2013.01 - EP US); **C22C 1/047** (2023.01 - EP); **G06K 1/125** (2013.01 - EP); **G06K 19/12** (2013.01 - EP); **H01F 1/0045** (2013.01 - EP); **H01F 1/44** (2013.01 - EP); **H05B 3/12** (2013.01 - EP); **B22F 2998/00** (2013.01 - EP); **B22F 2999/00** (2013.01 - EP); **H05B 2203/013** (2013.01 - EP); **H05B 2203/017** (2013.01 - EP); **H05K 1/097** (2013.01 - EP)

Citation (search report)  
• [XA] US 5665277 A 19970909 - JOHNSON D LYNN [US], et al  
• [A] US 5084109 A 19920128 - SIKKA VINOD K [US]  
• See references of WO 0130520A1

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Designated extension state (EPC)  
AL LT LV MK RO SI

DOCDB simple family (publication)  
**WO 0130520 A1 20010503**; AU 1221801 A 20010508; CA 2426665 A1 20010503; CA 2426665 C 20080812; EP 1244530 A1 20021002; EP 1244530 A4 20091216

DOCDB simple family (application)  
**US 0029105 W 20001023**; AU 1221801 A 20001023; CA 2426665 A 20001023; EP 00973743 A 20001023