

Title (en)

Metal particles, process for manufacturing the same, and process for manufacturing vehicle components therefrom

Title (de)

Metalpartikel, Prozess zu deren Herstellung und Verfahren zur Herstellung von Automobilteilen daraus

Title (fr)

Particules métalliques, procédé de leur fabrication et procédé de fabrication d'une composante structurale d'une vehicule à partir de ces particules métalliques

Publication

**EP 1757387 A1 20070228 (EN)**

Application

**EP 06119255 A 20060821**

Priority

JP 2005244247 A 20050825

Abstract (en)

Metal particles approximately in the form of spheres having a mean diameter of about 40µm to about 100 µm, including magnesium silicide particles having a mean diameter of about 1 µm to about 10 µm uniformly dispersed in the metal particles, the metal particles being obtained by mixing about 90 wt.% to about 95 wt.% of magnesium and about 5 wt.% to about 10 wt.% of silicon, and the magnesium silicide particles being formed in the metal particles by the reaction of the magnesium and the silicon.

IPC 8 full level

**B22F 9/08** (2006.01); **B22F 1/05** (2022.01); **C22C 23/00** (2006.01); **C22F 1/04** (2006.01)

CPC (source: EP US)

**B22F 1/05** (2022.01 - EP US); **B22F 5/008** (2013.01 - EP US); **B22F 9/082** (2013.01 - EP US); **C22C 23/00** (2013.01 - EP US); **B22F 2998/00** (2013.01 - EP US); **B22F 2998/10** (2013.01 - EP US)

Citation (applicant)

- JP 2005244247 A 20050908 - RENESAS TECH CORP
- JP 2000017352 A 20000118 - TOYOTA CENTRAL RES & DEV
- JP 2004225080 A 20040812 - CT FOR ADVANCED SCIENCE & TECH

Citation (search report)

- [A] WO 03105983 A2 20031224 - TOUCHSTONE RES LAB LTD [US]
- [A] EP 1433862 A1 20040630 - CT FOR ADVANCED SCIENCE & TECH [JP]
- [AD] JP 2004225080 A 20040812 - CT FOR ADVANCED SCIENCE & TECH
- [A] F. THÜMLER, R. OBERACKER: "An Introduction to Powder Metallurgy", 1993, THE INSTITUTE OF MATERIALS, LONDON, XP002403390
- [A] K. U. KAINER: "Magnesium-Eigenschaften, Anwendungen, Potentiale", 2000, WILEY-VCH VERLAG GMBH, WEINHEIM / DEUTSCHLAND, XP002403391

Designated contracting state (EPC)

DE

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

**EP 1757387 A1 20070228**; **EP 1757387 B1 20090513**; DE 602006006763 D1 20090625; DE 602006019924 D1 20110310; EP 2065108 A1 20090603; EP 2065108 B1 20110126; JP 2007056332 A 20070308; JP 5079225 B2 20121121; US 2007048167 A1 20070301; US 2010226810 A1 20100909

DOCDB simple family (application)

**EP 06119255 A 20060821**; DE 602006006763 T 20060821; DE 602006019924 T 20060821; EP 09155334 A 20060821; JP 2005244247 A 20050825; US 46658006 A 20060823; US 72108210 A 20100310