

Title (en)  
ALUMINUM ALLOY EXCELLENT IN MACHINABILITY AND ALUMINUM ALLOY MATERIAL AND METHOD FOR PRODUCTION THEREOF

Title (de)  
ALUMINIUMLEGIERUNG MIT HERVORRAGENDER ZERSPANBARKEIT UND ALUMINIUMLEGIERUNGSMATERIAL UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)  
ALLIAGE D'ALUMINIUM PRESENTANT UNE EXCELLENTE USINABILITE, ET MATERIAU D'ALLIAGE D'ALUMINIUM ET SON PROCEDE DE PRODUCTION

Publication  
**EP 1413636 A1 20040428 (EN)**

Application  
**EP 02755647 A 20020725**

Priority

- JP 0207517 W 20020725
- JP 2001224661 A 20010725
- JP 2002148340 A 20020522
- US 31136301 P 20010813

Abstract (en)  
First aluminum alloy which comprises 0.3 to 6 mass% of Mg, 0.3 to 10 mass% of Si, 0.05 to 1 mass% of Zn, 0.001 to 0.3 mass% of Sr and the balanced amount of Al and impurities; a second aluminum alloy which comprises the elements contained in the first alloy in amounts described above and further comprise one or more selected from among Cu, Fe, Mn, Cr, Zr, Ti, Na and Ca; A third aluminum alloy comprising 0.1 to 6 mass % of Mg, 0.3 to 12.5 mass% of Si, 0.01 mass% or more and less than 1 mass% of Cu, 0.01 to 3 mass% of Zn, 0.001 to 0.5 mass% of Sr and the balanced amount of Al and impurities; and a forth aluminum alloy which comprises the elements contained in the third alloy in amounts described above and further comprises one or more selected from among Ti, B, C, Fe, Cr, Mn, Zr, V, Sc, Ni, Na, Sb, Ca, Sn, Bi, and In.

IPC 1-7  
**C22C 21/02**; **C22F 1/043**

IPC 8 full level  
**C22C 21/00** (2006.01); **C22C 21/02** (2006.01); **C22C 21/04** (2006.01); **C22C 21/08** (2006.01); **C22F 1/04** (2006.01); **C22F 1/043** (2006.01); **C22F 1/047** (2006.01)

CPC (source: EP)  
**C22C 21/02** (2013.01); **C22C 21/04** (2013.01); **C22C 21/08** (2013.01); **C22F 1/043** (2013.01); **C22F 1/047** (2013.01)

Cited by  
WO2010079677A1; RU2623932C1; CN112921215A; US2018087132A1; CN103025901A; RU2639903C2; NO20220521A1; US9725790B2; US9797031B2; US10661338B2; US9982329B2; WO2021242772A1; WO2005108633A3; WO2012075993A3; WO2006083982A3; WO2011134486A1; US11098391B2; US8133331B2; US9096915B2; WO2009059593A3; WO2007025528A3; KR100903249B1; US8083244B2; US8302979B2; US8333395B2; US8567801B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)  
**EP 1413636 A1 20040428**; **EP 1413636 A4 20051116**; **EP 1413636 B1 20090128**; **EP 1413636 B9 20091021**; AT E422000 T1 20090215; CA 2454509 A1 20030206; CN 1555423 A 20041215; DE 60231046 D1 20090319; JP 2009024265 A 20090205; JP 4227014 B2 20090218; JP WO2003010349 A1 20041118; WO 03010349 A1 20030206

DOCDB simple family (application)  
**EP 02755647 A 20020725**; AT 02755647 T 20020725; CA 2454509 A 20020725; CN 02818303 A 20020725; DE 60231046 T 20020725; JP 0207517 W 20020725; JP 2003515695 A 20020725; JP 2008259961 A 20081006