

Title (en)
Amorphous alloy material and process for production thereof

Title (de)
Amorpher Legierungswerkstoff und Verfahren zu seiner Herstellung

Title (fr)
Alliage amorphe et procédé pour sa fabrication

Publication
EP 0561269 B1 19961127 (EN)

Application
EP 93103890 A 19930310

Priority
JP 6255892 A 19920318

Abstract (en)
[origin: EP0561269A2] An amorphous alloy material consisting of a principal element and other additive elements and containing fine grains of perfect crystals having an average particle size of 2 to 100 nm that are formed by self-control and dispersed in an amorphous alloy matrix; and a method for self-controlling the average particle size of the crystal to be in the range of 2 to 100 nm through the stable phase of the amorphous phase or the stability corresponding to precipitation treatment temperature in the amorphous matrix by heating the amorphous material. Examples of the principal element include Al, Mg and Ni and those of the additive elements include rare earth elements. The alloy material has superior mechanical strength and toughness and exhibits precipitation-induced plastic flow. <IMAGE>

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Cited by
CN115948706A; EP1036854A4; CN112553549A

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EP 0561269 A2 19930922; **EP 0561269 A3 19940406**; **EP 0561269 B1 19961127**; DE 69306145 D1 19970109; DE 69306145 T2 19970528; JP 2945205 B2 19990906; JP H0641703 A 19940215

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