

Title (en)

METHOD OF ATOMIZING ALLOY CRYSTAL GRAIN BY HYDROGEN TREATMENT

Title (de)

VERFAHREN ZUM ZERSTÄUBEN VON LEGIERUNGSKRISTALLKÖRNERN DURCH WASSERSTOFFBEHANDLUNG

Title (fr)

PROCEDE D'ATOMISATION DE GRAIN DE CRISTAL D'ALLIAGE PAR TRAITEMENT D'HYDROGÈNE

Publication

**EP 1749896 A4 20090624 (EN)**

Application

**EP 05721514 A 20050325**

Priority

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Abstract (en)

[origin: EP1749896A1] A technology for atomizing the crystal grains of alloy whose main constituents are elements exhibiting weak affinity with hydrogen. With respect to the alloy whose main constituents are elements exhibiting weak affinity with hydrogen in which an element exhibiting strong affinity with hydrogen is contained, resulting from attaining of presence of an element exhibiting strong affinity with hydrogen in an alloy whose main constituents are elements exhibiting weak affinity with hydrogen, any crystal grains of the alloy can be super-atomized by subjecting the alloy to heat treatment involving hydrogen absorption and release, thereby realizing super-high strength thereof. Thus, the properties of the alloy can be improved and enhanced.

IPC 8 full level

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CPC (source: EP US)

**B22F 1/07** (2022.01 - EP US); **C22C 21/02** (2013.01 - EP US); **C22C 21/06** (2013.01 - EP US); **B22F 2998/10** (2013.01 - EP US); **B22F 2999/00** (2013.01 - EP US)

Citation (search report)

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- See references of WO 2005098071A1

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