

Title (en)  
METAL MEMBER AND METHOD FOR MANUFACTURING SAME

Title (de)  
METALLELEMENT UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)  
ÉLÉMENT MÉTALLIQUE ET SON PROCÉDÉ DE FABRICATION

Publication  
**EP 3616808 A1 20200304 (EN)**

Application  
**EP 18790512 A 20180110**

Priority  
• JP 2017085858 A 20170425  
• JP 2018000273 W 20180110

Abstract (en)  
This metal member is provided with metal crystal grains (10) and a granular reinforcing substance (30) formed in the boundaries of the crystal grains. The reinforcing substance includes shapes having a grain surface area equivalent grain size larger than 1/100 of the grain surface area equivalent grain size of the crystal grains. The granular reinforcing substance (30) preferably includes grains for which the grain surface area equivalent grain size is smaller than 1/5 of the grain surface area equivalent grain size for the crystal grains. In addition, the granular reinforcing substance (30) preferably includes shapes wherein the value of the length of the longest length in a first direction divided by the length of the longest part in a direction orthogonal to the first direction is smaller than 5. A metal member with high strength at high temperatures is manufactured by metal powder injection molding.

IPC 8 full level  
**B22F 1/00** (2006.01); **B22F 3/02** (2006.01); **B22F 3/10** (2006.01); **C22C 1/05** (2006.01); **C22C 33/02** (2006.01)

CPC (source: EP US)  
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Designated extension state (EPC)  
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