

Title (en)
METAL POWDER MIXTURE AND THE USE THEREOF

Title (de)
METALLPULVERMISCHUNG UND DEREN VERWENDUNG

Title (fr)
MÉLANGE DE POUDRES MÉTALLIQUES ET SON UTILISATION

Publication
EP 2205381 A2 20100714 (DE)

Application
EP 08804025 A 20080911

Priority
• EP 2008062060 W 20080911
• DE 102007052198 A 20071026
• DE 102008027523 A 20080604

Abstract (en)
[origin: WO2009053156A2] The invention relates to a metal powder mixture and particularly advantageous uses of such a metal powder mixture. It is common to use such metal powder mixtures made of metal and metal alloy powders in order to be able to produce active agents with a certain alloy composition. The aim of the invention is to provide a metal powder mixture, by means of which a material may be obtained that is formed from a metal alloy subsequent to a heat treatment in a cost-effective manner, in that the individual alloy- or metal-forming components (alloy and element powders) are distributed in a more homogenous manner. In a second aspect the invention seeks to reduce the maximum temperature required for the production of the material during heat treatment. The metal powder mixture is formed from at least two different powder fractions. A first metal is contained in the first powder fraction, wherein the beginning of a phase conversion takes place in conjunction with the further alloy components contained therein at a temperature that is at least 200 K lower than the beginning of the melting of a material to be formed from the metal powder mixture by means of heat treatment. The first powder fraction has a mean particle size of less than 45 µm. A second powder fraction is formed with a second metal, and has a mean particle size of less than 10 µm.

IPC 8 full level
B22F 1/052 (2022.01); **B22F 1/0655** (2022.01)

CPC (source: EP US)
B22F 1/052 (2022.01 - EP US); **B22F 1/0655** (2022.01 - EP US); **B22F 2998/00** (2013.01 - EP)

Citation (search report)
See references of WO 2009053156A2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
WO 2009053156 A2 20090430; WO 2009053156 A3 20091126; AU 2008315429 A1 20090430; CA 2695764 A1 20090430; EP 2205381 A2 20100714; JP 2011501783 A 20110113; KR 20100085019 A 20100728; RU 2010120780 A 20111210

DOCDB simple family (application)
EP 2008062060 W 20080911; AU 2008315429 A 20080911; CA 2695764 A 20080911; EP 08804025 A 20080911; JP 2010530372 A 20080911; KR 20107007037 A 20080911; RU 2010120780 A 20080911