Title (en)

Oxide dispersion-strengthened Pt, PtRh or PtAu substance produced through internal oxidation with high oxide content and good ductility

Title (de)

Oxiddispersionsgehärteter, durch innere Oxidation hergestellter Pt, PtRh- oder PtAu-Werkstoff mit hohem Oxidanteil und guter Duktilität

Title (fr)

Matière première platine, platine Rh- ou platine Au fabriquée par oxydation interne, durcie par dispersion d'oxyde et ayant une teneur élevée en oxyde et une bonne ductilité

Publication

EP 1964938 B1 20100324 (DE)

Application

EP 08000288 A 20080109

Priority

DE 102007007873 A 20070214

Abstract (en)

[origin: EP1964938A1] Dispersion-hardened platinum-containing materials comprise a noble metal component and a dispersion hardener. They contain 95 - 99% of a noble metal component. This consists of platinum or an alloy containing (wt%): Pt at least 55; Rh 0= 30; Au 0 - 15 and Pd 0 - 40. The remainder contains more than 1 wt% of a dispersion-hardener consisting of one or more metals oxidized to an extent of at least 90 wt% with oxygen. The metals are chosen from cerium, zirconium, scandium and yttrium. An independent claim is included for a method for producing dispersion-hardened platinum-containing materials from massive alloy castings containing less than 99% of noble metal and more than 1 wt% of dispersion hardener by oxidizing the metal in the dispersion hardener to an extent of at least 90%.

IPC 8 full level

C22C 32/00 (2006.01); **C22C 5/04** (2006.01)

CPC (source: EP KR US)

C22C 1/1078 (2013.01 - EP US); **C22C 5/04** (2013.01 - EP KR US); **C22C 32/0021** (2013.01 - EP US)

Cited by

DE102013225187A1; DE102013225187B4; EP3971311A1; WO2015082630A1; EP4282526A1; WO2023227261A1; US11781208B2; EP3978884A1; US12024763B2; EP3077556B1

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DOCDB simple family (publication)

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DOCDB simple family (application)

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