

Title (en)  
OXIDE-DISPERSION-STRENGTHENED PLATINUM MATERIAL

Title (de)  
OXIDDISPERSIONSGEHÄRTETER PLATINWERKSTOFF

Title (fr)  
MATERIAU EN ALLIAGE DE PLATINE COMPRENANT UN OXYDE SOUS FORME DISPERSEE

Publication  
**EP 1712646 A4 20080220 (EN)**

Application  
**EP 05790584 A 20051006**

Priority  
• JP 2005018519 W 20051006  
• JP 2004295598 A 20041008

Abstract (en)  
[origin: EP1712646A1] The present invention aims at providing an oxide-dispersed platinum material which can be stably used at high temperatures and has excellent weldability. The present invention provides an oxide-dispersion-strengthened platinum material in which dispersed particles made from a metallic oxide of an additive metal are dispersed in a matrix made from platinum or a platinum alloy, characterized in that the concentration of oxygen in the material except oxygen bound to the additive metal is 100 ppm or lower. The platinum material according to the present invention has preferably an average diameter of the dispersed particles of 0.2  $\mu\text{m}$  or smaller, and an average interparticle distance of 0.01 to 2.7  $\mu\text{m}$ . The platinum material also preferably has the concentration of the dispersed particles in an amount of 0.01 to 0.5 wt%, and an oxidation rate of the additive metal of 50 to 100%.

IPC 8 full level  
**C22C 5/04** (2006.01); **B22F 1/12** (2022.01); **B22F 1/145** (2022.01); **C22C 1/05** (2006.01)

CPC (source: EP KR US)  
**B22F 1/12** (2022.01 - EP KR US); **B22F 1/145** (2022.01 - EP KR US); **C22C 1/059** (2023.01 - KR); **C22C 1/1084** (2013.01 - EP KR US); **C22C 5/04** (2013.01 - EP KR US); **C22C 32/0021** (2013.01 - EP KR US); **B22F 2998/10** (2013.01 - EP KR US); **B22F 2999/00** (2013.01 - EP KR US)

C-Set (source: EP US)

EP  
1. **B22F 2999/00 + B22F 9/04 + B22F 2201/05**  
2. **B22F 2999/00 + B22F 9/082 + B22F 2201/11**  
3. **B22F 2998/10 + B22F 9/04 + B22F 3/10 + B22F 9/082 + B22F 1/145 + B22F 3/02 + B22F 3/17 + B22F 3/18 + B22F 3/24 + B22F 3/18**  
US  
1. **B22F 2998/10 + B22F 9/082 + B22F 9/04 + B22F 1/145 + B22F 3/10 + B22F 3/02 + B22F 3/17 + B22F 3/18 + B22F 3/24 + B22F 3/18**  
2. **B22F 2999/00 + B22F 9/04 + B22F 2201/05**  
3. **B22F 2999/00 + B22F 9/082 + B22F 2201/11**  
4. **B22F 2998/10 + B22F 9/04 + B22F 3/10 + B22F 9/082 + B22F 1/145 + B22F 3/02 + B22F 3/17 + B22F 3/18 + B22F 3/24 + B22F 3/18**

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**EP 1712646 A1 20061018; EP 1712646 A4 20080220**; CN 100507041 C 20090701; CN 1910299 A 20070207; JP WO2006040995 A1 20080515; KR 20060122914 A 20061130; RU 2006127038 A 20080127; RU 2333974 C2 20080920; TW 200624571 A 20060716; TW I299756 B 20080811; US 2009047170 A1 20090219; WO 2006040995 A1 20060420

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**EP 05790584 A 20051006**; CN 200580003032 A 20051006; JP 2005018519 W 20051006; JP 2006540903 A 20051006; KR 20067016022 A 20060809; RU 2006127038 A 20051006; TW 94134944 A 20051006; US 58382705 A 20051006