

Title (en)
METHOD FOR CONSOLIDATING TOUGH COATED HARD POWDERS

Title (de)
VERFAHREN ZUM KONSOLIDIEREN VON MIT RESISTENTER BESCHICHTUNG BESCHICHTETEN HARTPULVERN

Title (fr)
PROCEDE DE RENFORCEMENT DE POUDRES DURES A REVETEMENT RESISTANT

Publication
EP 1768804 A1 20070404 (EN)

Application
EP 04776430 A 20040610

Priority
US 2004018445 W 20040610

Abstract (en)
[origin: WO2006001791A1] A method of consolidating particulate materials into articles having combinations of properties not available by conventional processes by liquid phase sintering. These particulate materials are comprised of core particles individually coated with layers of a metal compound having a relatively higher fracture toughness than the core, such as WC or TaC. These coated particles include an outer layer comprised a metal, such as Co or Ni. The particles with these coatings are pressed to form an article and the article densified at pressures and temperatures where full density is achieved without the degradation of the material forming the core particle.

IPC 8 full level
B22F 1/16 (2022.01); **B22F 1/17** (2022.01)

CPC (source: EP KR US)
B22F 1/16 (2022.01 - EP KR US); **B22F 1/17** (2022.01 - EP KR US); **B22F 3/1035** (2013.01 - EP KR US); **B22F 7/02** (2013.01 - KR)

Cited by
CN110004441A; CN110461511A; US10745802B2

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DOCDB simple family (publication)
WO 2006001791 A1 20060105; AU 2004321077 A1 20060105; AU 2004321077 B2 20110623; BR PI0418870 A 20071127; BR PI0418870 B1 20140415; CA 2570671 A1 20060105; CA 2570671 C 20130108; CN 1997475 A 20070711; CN 1997475 B 20100929; EP 1768804 A1 20070404; EP 1768804 A4 20100915; IL 179667 A0 20070515; IL 179667 A 20161229; JP 2008502576 A 20080131; KR 101215656 B1 20130110; KR 20070044430 A 20070427; MX PA06013640 A 20070516; NO 20070168 L 20070110; RU 2006145849 A 20080720; RU 2366539 C2 20090910; RU 2366539 C9 20100210; SA 05260249 B1 20080603

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