

Title (en)
PROCESS FOR ELECTROPLATING METALLIC AND METALL MATRIX COMPOSITE FOILS, COATINGS AND MICROCOMPONENTS

Title (de)
VERFAHREN ZUR ELEKTROPLATTIERUNG VON METALLISCHEN UND METALL-MATRIX-COMPOSITE FOLIEN, BESCHICHTUNGEN UND MIKROKOMPONENTEN

Title (fr)
PROCEDE DE PLACAGE ELECTROCHIMIQUE DE FEUILLES METALLIQUES ET DE COMPOSITES A MATRICE METALLIQUE, DE REVETEMENTS ET DE MICROCOMPOSANTS

Publication
EP 1516076 A1 20050323 (EN)

Application
EP 02754753 A 20020625

Priority
EP 0207023 W 20020625

Abstract (en)
[origin: EP1826294A1] The invention relates to a process for forming coatings or free-standing deposits of nanocrystalline metals, metal alloys or metal matrix composites. The process employs drum plating or selective plating processes involving pulse electrodeposition and a non-stationary anode or cathode. Novel nanocrystalline metal matrix composites and micro components are disclosed as well. Also described is a process for forming micro components with grain sizes below 1,000nm.

IPC 1-7
C25D 1/04; **C25D 5/02**; **C25D 5/06**; **C25D 5/18**; **C25D 15/02**

IPC 8 full level
C25D 1/04 (2006.01); **C25D 5/02** (2006.01); **C25D 5/06** (2006.01); **C25D 5/18** (2006.01); **C25D 5/20** (2006.01); **C25D 7/04** (2006.01); **C25D 15/02** (2006.01); **C25D 17/00** (2006.01); **C25D 21/12** (2006.01)

CPC (source: EP KR US)
C25D 1/04 (2013.01 - EP KR US); **C25D 5/02** (2013.01 - EP KR); **C25D 5/06** (2013.01 - EP KR); **C25D 5/08** (2013.01 - EP KR US); **C25D 5/18** (2013.01 - EP KR US); **C25D 5/20** (2013.01 - EP KR US); **C25D 5/617** (2020.08 - EP KR US); **C25D 5/67** (2020.08 - EP KR US); **C25D 7/04** (2013.01 - EP KR); **C25D 15/00** (2013.01 - EP KR); **C25D 15/02** (2013.01 - EP KR)

Cited by
US10102930B2

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
WO 2004001100 A1 20031231; AT E387522 T1 20080315; AU 2002321112 A1 20040106; AU 2002321112 B2 20080703; BR 0215787 A 20050301; BR 0215787 B1 20131203; CA 2490464 A1 20031231; CA 2490464 C 20080902; DE 60225352 D1 20080410; DE 60225352 T2 20080612; DK 1516076 T3 20080623; EP 1516076 A1 20050323; EP 1516076 B1 20080227; EP 1826294 A1 20070829; ES 2301666 T3 20080701; HK 1075278 A1 20051209; IL 165904 A0 20060115; JP 2005530926 A 20051013; KR 100890819 B1 20090406; KR 20050024394 A 20050310; MX PA04011940 A 20050331; PT 1516076 E 20080311; ZA 200410368 B 20060726

DOCDB simple family (application)
EP 0207023 W 20020625; AT 02754753 T 20020625; AU 2002321112 A 20020625; BR 0215787 A 20020625; CA 2490464 A 20020625; DE 60225352 T 20020625; DK 02754753 T 20020625; EP 02754753 A 20020625; EP 07002944 A 20020625; ES 02754753 T 20020625; HK 05107489 A 20050825; IL 16590404 A 20041221; JP 2004514605 A 20020625; KR 20047021188 A 20041224; MX PA04011940 A 20020625; PT 02754753 T 20020625; ZA 200410368 A 20041223