

Title (en)
COLD GAS SPRAYING METHOD

Title (de)
KALTGASSPRITZVERFAHREN

Title (fr)
PROCEDE DE PULVERISATION DE GAZ FROID

Publication
EP 1926841 B1 20140820 (DE)

Application
EP 06793543 A 20060915

Priority
• EP 2006066392 W 20060915
• DE 102005047688 A 20050923

Abstract (en)
[origin: DE102005047688B3] In a cold gas spray application for the fabrication of components from nano-particles, a cold gas jet bearing the particles (19) is directed at a coated substrate. The particles employed are micro-encapsulated agglomerated micro-particles (27). The delivery energy imparted on the capsules causes the capsules to rupture on impact with the substrate. The nano-particles are deposited on and absorbed by a contact layer and the capsule residues are removed in a subsequent process. The energy imparted to the incoming gas and the type of nano-particles are varied as required throughout the process. the coating of nano-particles is subsequently heat-treated. The nano-additives inhibit the formation of granular growth. The substrate is a plastic light bulb socket.

IPC 8 full level
C23C 24/08 (2006.01); **B22F 1/00** (2006.01); **C23C 24/04** (2006.01)

CPC (source: EP US)
C23C 24/04 (2013.01 - EP US)

Citation (examination)
• WO 2004091571 A2 20041028 - NEW JERSEY TECH INST [US]
• WO 0204694 A1 20020117 - LINDE GAS AG [DE], et al

Designated contracting state (EPC)
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DOCDB simple family (publication)
DE 102005047688 B3 20061102; DE 102005047688 C5 20080918; EP 1926841 A1 20080604; EP 1926841 B1 20140820; US 2011039024 A1 20110217; US 8080278 B2 20111220; WO 2007033936 A1 20070329

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DE 102005047688 A 20050923; EP 06793543 A 20060915; EP 2006066392 W 20060915; US 99232506 A 20060915