

Title (en)  
Arc-coating process with rotating cathodes

Title (de)  
Bogenbeschichtung mit Drehkathoden

Title (fr)  
Revêtement à l'arc avec cathodes rotatives

Publication  
**EP 1357577 A8 20031217 (EN)**

Application  
**EP 02008914 A 20020422**

Priority  
EP 02008914 A 20020422

Abstract (en)  
[origin: EP1357577A1] A PVD method is proposed for coating substrates (10) in a vacuum chamber (20) with at least one anode (30), a cathode (40) and a magnetic field source (42). The cathode (40) can be controlled by the magnetic field source (42) in relation to the direction of the separated material. The method is based on the additional step of effectively turning the magnetic field source before the coating process so that the particles separated from the cathode (40) by the arc can impact on a chamber wall and thus cleaning processes can be carried out in the chamber and at the cathode. It is further proposed that the coating should be carried out successively in relation to the height by moving the magnetic field source (42) upwards and downwards, wherein the magnetic field source (42) is turned relative to the cathode (40) during the upward and downward movement and thus the deposition rate is varied in relation to the height. In the upper region and in the lower region of the deposition process the magnetic field source (42) acquires a direction in which the deposition rate is higher than in the central region. <IMAGE>

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**H01J 37/34**; **H01J 37/32**

IPC 8 full level  
**C23C 14/00** (2006.01); **C23C 14/32** (2006.01); **C23C 14/34** (2006.01); **H01J 37/32** (2006.01); **H01J 37/34** (2006.01)

CPC (source: EP US)  
**C23C 14/325** (2013.01 - EP US); **H01J 37/32055** (2013.01 - EP US); **H01J 37/3402** (2013.01 - EP US); **H01J 2237/022** (2013.01 - EP US)

Cited by  
EP2521159A1; WO2012152642A1; EP1628322A1; CZ304905B6; GB2410255A; US7704611B2; EP2163661A1; US8349474B2

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