

Title (en)

METHOD AND APPARATUS FOR COATING A SUBSTRATE IN A VACUUM

Title (de)

VERFAHREN UND VORRICHTUNG ZUM BESCHICHTEN EINES SUBSTRATES IM VAKUUM

Title (fr)

PROCEDE ET APPAREIL DESTINE AU DEPOT SOUS VIDE D'UN REVETEMENT SUR UN SUBSTRAT

Publication

EP 1246951 A4 20041013 (EN)

Application

EP 00975328 A 20001020

Priority

- US 0029099 W 20001020
- US 16109499 P 19991022

Abstract (en)

[origin: WO0131081A1] A method and apparatus for coating a substrate with a deposition material in a vacuum wherein a material source having a substantially longitudinal deposition emission component is used to create a substantially longitudinal material deposition emission plume which coats a surface of the substrate without increasing the throw distance between the substrate and the material source.

IPC 1-7

C23C 14/24; **C23C 14/12**

IPC 8 full level

C23C 14/12 (2006.01); **C23C 14/24** (2006.01)

CPC (source: EP KR)

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Citation (search report)

- [XY] US 4903165 A 19900220 - RONCHI PIETRO [IT]
- [XY] DE 2436431 A1 19760212 - LICENTIA GMBH
- [X] GB 685269 A 19521231 - NAT RES CORP
- [X] US 5544618 A 19960813 - STALL RICHARD A [US], et al
- [Y] US 3746502 A 19730717 - ERHART F, et al
- [A] EP 0489443 A1 19920610 - XEROX CORP [US]
- [A] DE 4422697 C1 19960125 - ZSW [DE]
- [X] US 5265189 A 19931123 - SCHOENHERR BERNHARD [DE]
- [PX] GB 2339800 A 20000209 - GEN VACUUM EQUIP LTD [GB]
- [A] DE 970246 C 19580828 - SIEMENS AG
- [X] GB 2211209 A 19890628 - PHILIPS ELECTRONIC ASSOCIATED [GB]
- [PX] US 6082296 A 20000704 - TRAN CHUONG VAN [US]
- [X] PATENT ABSTRACTS OF JAPAN vol. 008, no. 134 (C - 230) 21 June 1984 (1984-06-21)
- [X] PATENT ABSTRACTS OF JAPAN vol. 0070, no. 11 (C - 145) 18 January 1983 (1983-01-18)
- See references of WO 0131081A1

Cited by

US7433141B2

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WO 0131081 A1 20010503; AU 1339401 A 20010508; CA 2388178 A1 20010503; CN 1175126 C 20041110; CN 1402800 A 20030312; DE 10085115 T1 20021107; EP 1246951 A1 20021009; EP 1246951 A4 20041013; JP 2003513169 A 20030408; KR 100495751 B1 20050617; KR 20020068039 A 20020824; TW 574396 B 20040201

DOCDB simple family (application)

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