Title (en)

ELECTRON BEAM PHYSICAL VAPOR DEPOSITION APPARATUS AND VIEWPORT THEREFOR

Title (de)

ELEKTRONENSTRAHL-PVD-VORRICHTUNG UND SICHTFENSTER DAFÜR

Title (fr)

APPAREIL DE DEPOT PHYSIQUE EN PHASE VAPEUR PAR FAISCEAU D'ELECTRONS ET HUBLOT DESTINE A CELUI-CI

Publication

EP 1198608 A1 20020424 (EN)

Application

EP 00952447 A 20000803

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Abstract (en)

[origin: WO0157288A1] An electron beam physical vapor deposition (EBPVD) apparatus (10) and a method for using the apparatus (10) to produce a coating (e.g., a ceramic thermal barrier coating) on an article (20). The EBPVD apparatus (10) generally includes a coating chamber (12) that is operable at elevated temperatures and subatmospheric pressures. An electron beam gun (30) projects an electron beam (28) into the coating chamber (12) and onto a coating material (26) within the chamber (12), causing the coating material (26) to melt and evaporate. An article (20) is supported within the coating chamber (12) so that vapors of the coating material (26) deposit on the article (20). The operation of the EBPVD apparatus (10) is enhanced by the inclusion of a viewport (48) for viewing the coating process performed within the apparatus (10).

IPC 1-7

C23C 14/30

IPC 8 full level

C23C 14/30 (2006.01); **C23C 14/52** (2006.01); **H01J 37/305** (2006.01)

CPC (source: EP)

C23C 14/30 (2013.01); **C23C 14/52** (2013.01); **H01J 37/3053** (2013.01); H01J 2237/3132 (2013.01)

Citation (search report)

See references of WO 0157288A1

Citation (examination)

- JP H0797684 A 19950411 - KAO CORP
- EP 0345015 A1 19891206 - BOC GROUP INC [US]
- US 5270856 A 19931214 - WENK KARL-HEINRICH [DE]

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