

Title (en)
VACUUM DEPOSITION APPARATUS USING ELECTRON BEAMS

Title (de)
VAKUUMAUFDAMPFANLAGE MIT ELEKTRONENSTRAHLEN

Title (fr)
APPAREIL DE DEPOT SOUS VIDE A FAISCEAUX D'ELECTRONS

Publication
EP 0977903 A1 20000209 (EN)

Application
EP 99905319 A 19990226

Priority
• JP 9900902 W 19990226
• JP 4650398 A 19980227

Abstract (en)
[origin: WO9943864A1] The invention provides a vacuum deposition apparatus, which comprises a vacuum chamber (31), an electron beam source (32) coupled to said vacuum chamber, a holder (34) provided in the vacuum chamber for holding a substrate (36) on which a film is to be deposited, a target (38) of deposition materials being placed opposite to the substrate, said target having at least the same area as the substrate, and magnets (39) provided at the back of the target for generating magnetic fields near a surface of the target. The target opposite to the substrate has at least the same area as the substrate and the magnetic fields are generated near the surface of the target. The electrons emitted from the electron beam source are therefore diffused and uniformly distributed over the surface of the target. The electrons enter into the target, and the materials on the surface of the target are uniformly sputtered.

IPC 1-7
C23C 14/30; **H01J 37/317**

IPC 8 full level
C23C 14/30 (2006.01); **H01J 37/317** (2006.01)

CPC (source: EP KR)
C23C 14/30 (2013.01 - EP); **C23C 14/3407** (2013.01 - KR); **C23C 14/355** (2013.01 - KR); **H01J 37/3178** (2013.01 - EP)

Citation (search report)
See references of WO 9943864A1

Designated contracting state (EPC)
BE DE GB NL

DOCDB simple family (publication)
WO 9943864 A1 19990902; EP 0977903 A1 20000209; JP H11241158 A 19990907; KR 20010020339 A 20010315; TW 445302 B 20010711

DOCDB simple family (application)
JP 9900902 W 19990226; EP 99905319 A 19990226; JP 4650398 A 19980227; KR 19997009955 A 19991027; TW 88103007 A 19990226