

Title (en)  
CATHODE HAVING VARIABLE MAGNET CONFIGURATION

Title (de)  
KATHODE MIT VARIABLEM MAGNETKONFIGURATION

Title (fr)  
CATHODE A CONFIGURATION VARIABLE DES AIMANTS

Publication  
**EP 1145278 A1 20011017 (EN)**

Application  
**EP 98964215 A 19981221**

Priority  
US 9827250 W 19981221

Abstract (en)  
[origin: WO0038214A1] A sputtering system (10) for depositing a thin film onto a substrate (148) is disclosed wherein the system includes an evacuable chamber (12) which includes the substrate. In particular, the system includes a target (144) positioned within the chamber, wherein the target has a back surface and a sputtering surface (146). Further, the system includes plasma for eroding the target to provide material for forming the thin film wherein erosion of the target occurs in a predetermined erosion pattern and is controlled by a shape of the plasma. The system also includes a support (150) for supporting the substrate opposite the sputtering surface. A magnet arrangement is provided which provides a magnetic field on the target for controlling the shape of the plasma, wherein the magnet arrangement is positioned adjacent the back surface. The magnet arrangement (28) includes a plurality of magnet segments (36-50) which may be moved into desired positions so as to change the shape of the magnet arrangement. This enables adjustment of a dwell time of the magnetic field over predetermined portions of the target to change the shape of the plasma and thus change the erosion pattern of the target.

IPC 1-7  
**H01J 37/34**

IPC 8 full level  
**C23C 14/35** (2006.01); **H01J 37/34** (2006.01)

CPC (source: EP KR)  
**C23C 14/35** (2013.01 - KR); **H01J 37/3408** (2013.01 - EP KR); **H01J 37/3455** (2013.01 - EP KR)

Citation (search report)  
See references of WO 0038214A1

Designated contracting state (EPC)  
DE FR GB IT NL

DOCDB simple family (publication)  
**WO 0038214 A1 20000629**; EP 1145278 A1 20011017; JP 2003531284 A 20031021; JP 3727849 B2 20051221; KR 100437867 B1 20040630; KR 20010108016 A 20011207

DOCDB simple family (application)  
**US 9827250 W 19981221**; EP 98964215 A 19981221; JP 2000590193 A 19981221; KR 20017007322 A 20010612