

Title (en)
SPUTTERING DEVICE AND LIQUID-COOLED TARGET ASSEMBLY THEREFOR

Title (de)
SPUTTERVORRICHTUNG UND FLÜSSIGGEKÜHLTER TARGETAUFBAU DAFÜR

Title (fr)
DISPOSITIF DE PULVERISATION ET ENSEMBLE CIBLE REFROIDI PAR UN LIQUIDE

Publication
EP 0873430 A1 19981028 (EN)

Application
EP 97933336 A 19970717

Priority
• US 9711916 W 19970717
• US 68444096 A 19960717

Abstract (en)
[origin: WO9802597A1] A magnetron sputtering device (5) has a pressure controllable chamber (25) and a sputtering chamber (10) next to each other and a generally flat target assembly (20) at the opening in between such that the pressure inside each chamber can be individually controlled and the pressure difference between both sides of the target assembly (20) can be reduced. The target assembly (20) has a target plate (40) with sputtering surface (45) inside the sputtering chamber and a cooling plate with grooved surface attached to the back surface of the target plate (40) such that a cooling liquid flowing through the passages formed by the grooves can cool the target. The grooves are formed in a pattern having a plurality of mutually parallel straight passages for efficient and uniform cooling. The grooves surface of the cooling plate may face the target plate (40) or away from the target plate (40) with a cover plate attached over the grooved surface. The target assembly (20) may be made movable perpendicularly to the sputtering surface (45) such that the distance between the sputtering surface (45) and the object (33) to be sputtered can be kept constant as the sputtering surface (45) of the target is consumed.

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C23C 14/34

IPC 8 full level
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CPC (source: EP KR)
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Citation (search report)
See references of WO 9802597A1

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