Title (en)

Quartz lamp envelope with molybdenum foil having oxidation-resistant surface formed by ion implantation

Title (de)

Lampenquarzkolben mit Molybdanfolie mit Oxydationsbeständiger Fläche, gebildet durch Ionenimplantation

Title (fr)

Enveloppe en quartz pour lampe avec feuille en molybdène pourvue d'une surface résistant à l'oxydation réalisée par implantation ionique

Publication

EP 0375402 B1 19980318 (EN)

Application

EP 89313370 A 19891220

Priority

US 28775588 A 19881221

Abstract (en)

[origin: EP0375402A2] A quartz lamp envelope (12) includes a press seal (22), at least one molybdenum foil feedthrough (24,30) extending through the press seal (22) to the lamp interior, and an external electrical lead (26,32) connected to the molybdenum foil. The molybdenum foil has an oxidation-inhibiting material, such as chromium, aluminium and combinations thereof, embedded in a surface layer thereof by ion implantation. The electrical lead has an oxidation-inhibiting coating, such as silicon carbide, silicon nitride and combinations thereof, formed by plasma-enhanced chemical vapor deposition. Alternatively, the electrical lead can have an oxidation-inhibiting material embedded in a surface layer thereof by ion implantation.

IPC 1-7

H01J 61/36; H01K 1/40; H01K 1/38; H01K 3/20; H01J 5/38; H01J 5/46; H01J 9/32; H01J 9/28

IPC 8 full level

H01J 5/38 (2006.01); **H01J 5/46** (2006.01); **H01J 9/28** (2006.01); **H01J 9/32** (2006.01); **H01J 61/36** (2006.01); **H01K 1/40** (2006.01)

CPC (source: EP)

H01J 5/38 (2013.01); **H01J 5/46** (2013.01); **H01J 9/28** (2013.01); **H01J 9/326** (2013.01); **H01J 61/368** (2013.01)

Cited by

US6265817B1; EP2107595A3; US5542867A; EP0657912A3; US7764019B2; WO0010193A1

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