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(54) Quartz lamp envelope with molybdenum foil having oxidation-resistant surface formed by ion implantation.

(57) 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.

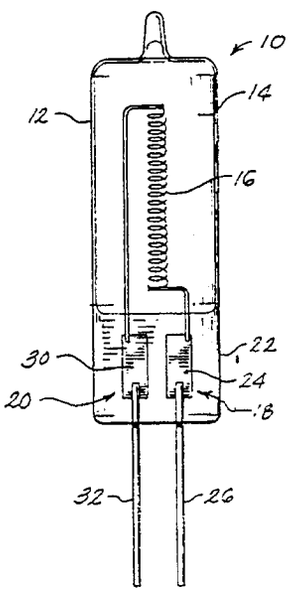


FIG. 1

EP 0 375 402 A3

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EUROPEAN SEARCH REPORT

Application Number

EP 89 31 3370

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	FR-A-2 449 968 (N. V. PHILIPS' GLOEILAMPEN-FABRIEKEN) * page 1, lines 1 - 17 * * page 1, lines 31 - 35 * * page 5, line 21 *	1,3,4,7,9, 12-15	H 01 J 61/36 H 01 K 1/40 H 01 K 1/38 H 01 K 3/20 H 01 J 5/38 H 01 J 5/46 H 01 J 9/32 H 01 J 9/28
A	EP-A-0 183 403 (THORN EMI PLC) * abstract * * page 2, lines 19 - 23 *	2,3,8,13	
A	PATENT ABSTRACTS OF JAPAN vol. 10, no. 49 (C-330)(2106) 26 February 1986, & JP-A-60 194043 (TOSHIBA K.K.) 2 October 1985, * the whole document *	2,3,5,8,13	
A	FR-A-2 300 415 (N. V. PHILIPS' GLOEILAMPEN-FABRIEKEN) * page 1, lines 1 - 19 * * page 2, lines 1 - 11 *	2-4,8,9, 13	
A	EP-A-0 010 204 (HITACHI, LTD.) * abstract *	3,6,14,17	
E	JP-A-2 500 684 (USHIO INC.) & Patent Abstracts of Japan, vol. 14, No. 222 (E-926) (4165), 10/5/1990	1,3,8,13	

TECHNICAL FIELDS SEARCHED (Int. Cl.5)

H 01 J
H 01 K

The present search report has been drawn up for all claims

Place of search	Date of completion of search	Examiner
The Hague	30 January 91	MARTIN Y VICENTE M.A

CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone
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A: technological background
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