



Europäisches Patentamt  
European Patent Office  
Office européen des brevets



(11) **EP 0 668 605 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**26.03.1997 Bulletin 1997/13**

(51) Int. Cl.<sup>6</sup>: **H01J 65/04**, H01J 61/30

(43) Date of publication A2:  
**23.08.1995 Bulletin 1995/34**

(21) Application number: **95100561.0**

(22) Date of filing: **17.01.1995**

(84) Designated Contracting States:  
**DE FR GB IT**

(30) Priority: **17.02.1994 HU 9400450**

(71) Applicant: **TUNGSRAM Részvénytársaság**  
**H-1340 Budapest IV (HU)**

(72) Inventors:  
• **Balázs, László**  
**Budapest, XIII. (HU)**

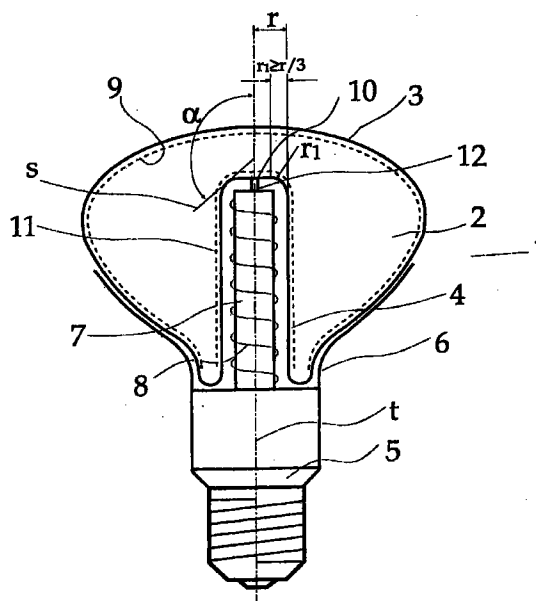
- **Downton, Kenneth James**  
**Leicester, LE2 0JF (GB)**
- **Everest, Steven John**  
**Leicester, LE2 1FQ (GB)**
- **Sajo, Gábor**  
**Budapest, IV (HU)**
- **Szigeti, Judit**  
**H-1043 Budapest (HU)**

(74) Representative: **Viering, Jentschura & Partner**  
**Postfach 22 14 43**  
**80504 München (DE)**

(54) **Electrodeless low-pressure discharge lamp**

(57) The invention relates to an electrodeless low-pressure discharge lamp (1) comprising a discharge vessel (2) made from a light-transmitting material and having a bulb portion (3) and a tubular cavity portion (4) sealed in a gas-tight manner, the discharge lamp (1) comprising furthermore an induction coil (8) placed in the cavity portion (4), and a base member (5) providing for electrical connection with the terminals of the coil and for fixing the lamp (1) and for outer electrical contact where the discharge vessel (2) contains a noble gas fill and additive material and its wall is provided with phosphor-containing coating.

The essential feature of the solution according to the invention is that the top surface (10) of the tubular cavity portion (4) is formed - over a distance of at least one-third tube radius ( $r$ ), beginning at the mantle surface (11) of the tubular cavity portion (4) and continuing inwardly towards the lamp axis ( $t$ ) - so that the theoretical tangential planes ( $s$ ) of the top surface (10) make an angle ( $\alpha$ ) exceeding 90 degrees with the lamp axis ( $t$ ) and the top surface (10) of the tubular cavity portion (4) has a rounded juncture with the mantle portion (11) of the cavity portion (4).



**Fig. 1**

**EP 0 668 605 A3**



European Patent  
Office

## EUROPEAN SEARCH REPORT

Application Number  
EP 95 10 0561

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.6)
X Y	EP 0 551 679 A (PHILIPS NV) 21 July 1993 * column 3, line 42 - line 50; figure 1 * ---	1,2 1,2,5	H01J65/04 H01J61/30
D,X Y	EP 0 496 464 A (PHILIPS NV) 29 July 1992 * abstract; figure * * column 3, line 1 - line 3 * * column 3, line 27 - line 30 * ---	1,2 1,2,5	
X Y	EP 0 252 546 A (PHILIPS NV) 13 January 1988 * abstract; figure 1 * * column 3, line 9 - line 14 * * column 4, line 31 - line 36 * ---	1,4 1,4,5	
X Y	US 4 048 541 A (ADAMS GUY ET AL) 13 September 1977 * column 2, line 37 - line 40; figure 2 * ---	1,4 1,4,5	
Y	PATENT ABSTRACTS OF JAPAN vol. 005, no. 078 (E-058) [750] , 22 May 1981 & JP 56 028460 A (MITSUBISHI ELECTRIC CORP), 20 March 1981, * figure * ---	1,2,4,5	TECHNICAL FIELDS SEARCHED (Int.Cl.6) H01J
A	EP 0 198 524 A (PHILIPS NV) 22 October 1986 * abstract; figures 1,3 * * page 4, line 20 - line 23 * * page 5, line 2 - line 3 * -----	1,3	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 16 January 1997	Examiner Martín Vicente, M
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03.82 (P04C01)