(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 25 August 2005 (25.08.2005)

PCT

(10) International Publication Number WO 2005/078766 A3

(51) International Patent Classification: *H01,J 61/30* (2006.01)

(21) International Application Number:

PCT/IB2004/052939

(22) International Filing Date:

30 December 2004 (30.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

04100128.0 16 January 2004 (16.01.2004) EF

(71) Applicant (for all designated States except US): KONIN-KLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): VERMEULEN, Fransiscus, A. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agents: DUSSELDORP, Jan, C. et al.; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,

GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

 as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

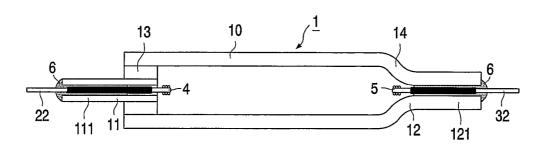
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 12 October 2006

-- -----

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: GAS DISCHARGE LAMP



(57) Abstract: A gas discharge lamp comprising a substantially cylindrical discharge vessel, containing an ionizable filling comprising a rare gas and a salt, and first and second electrodes positioned near a first and a second end of the discharge vessel, respectively, wherein the first end of the discharge vessel has a cylindrically shaped side wall and a substantially disc-shaped end wall near the tip of the first electrode, wherein the second end of the discharge vessel has a tapered side wall near the tip of the second electrode, and wherein the tapered side wall has a substantially constant thickness.

INTERNATIONAL SEARCH REPORT

Intention No PCT/IB2004/052939

A. CLASSIFICATION OF SUBJECT MATTER INV. H01J61/30									
ļ ·									
According to International Patent Classification (IPC) or to both national classification and IPC									
	SEARCHED	inetica sumb ala							
Minimum do H01J	ocumentation searched (classification system followed by classif	cation symbols)							
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched									
Electronic data base consulted during the international search (name of data base and, where practical, search terms used)									
EPO-In	ternal, WPI Data, PAJ								
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT								
Category °	Citation of document, with indication, where appropriate, of the	e relevant passages	Relevant to claim No.						
Υ	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 02, 29 February 2000 (2000-02-29)		1-8						
	& JP 11 329353 A (NGK INSULATOR 30 November 1999 (1999-11-30) cited in the application								
	abstract								
Y	GB 1 189 422 A (PHILIPS ELECTRO ASSOCIATED INDUSTRIES LIMITED) 29 April 1970 (1970-04-29)	1-8							
	page 1 - page 2, line 38 claim 1								
A	US 6 147 453 A (GEIJTENBEEK ET 14 November 2000 (2000-11-14) figure 2	1-8							
	column 1 - column 2								
		-/							
χ Furi	ther documents are listed in the continuation of box C.	χ Patent family members are listed	in annex.						
° Special ca	ategories of cited documents:	"T" later document published after the into	ernational filing date						
'A' docum	ent defining the general state of the art which is not dered to be of particular relevance	eory underlying the							
"E" earlier filing	claimed invention It be considered to								
which	ent which may throw doubts on priority claim(s) or is cited to establish the publication date of another	involve an inventive step when the do "Y" document of particular relevance; the	claimed invention						
citation or other special reason (as specified) cannot be considered to involve an inventive step when the document referring to an oral disclosure, use, exhibition or document is combined with one or more other such documents.									
other "P" docum									
<u> </u>	han the priority date claimed actual completion of the international search	*&" document member of the same patent Date of mailing of the international set							
	August 2006	17/08/2006							
Name and	mailing address of the ISA	Authorized officer							
	European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax. (+31–70) 340–3016	But, G-I							

3

INTERNATIONAL SEARCH REPORT

Inte onal Application No
PCT/IB2004/052939

		101/182004/032939
	nation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 03/060946 A (KONINKLIJKE PHILIPS ELECTRONICS N.V; GEIJTENBEEK, JOHANNES J., F; VERM) 24 July 2003 (2003-07-24) figure 1	1
4	US 4 625 149 A (DANNO ET AL) 25 November 1986 (1986-11-25) column 1 - column 3	1
1	US 3 878 421 A (BOEHME ET AL) 15 April 1975 (1975-04-15) column 2 column 4, line 61 - line 37	

3

INTERNATIONAL SEARCH REPORT

Interplonal Application No PCT/IB2004/052939

							2004/ 032333
	atent document d in search report		Publication date		Patent family member(s)		Publication date
JP	11329353	Α	30-11-1999	NONE			
GB	1189422		29-04-1970	AT	286449	 ЭВ	10-12-1970
				BE	710477	7 A	07-08-1968
				CH	47146		15-04-1969
				DE	163908		21-01-1971
				DK	140772	_	12-11-1979
				ES	350240		16-04-1969
				FR	1555032		24-01-1969
				NL	670194		12-08-1968
				SE 	352982	2 B 	15-01-1973
US	6147453	Α	14-11-2000	CN	1246200	Α	01-03-2000
				DE	69812069	9 D1	17-04-2003
				DE	69812069		27-11-2003
				ES	219357!		01-11-2003
				WO	992894		10-06-1999
				JP	200151063	1 T	31-07-2001
WO	03060946	Α	24-07-2003	- -	2002356378	B A1	30-07-2003
				CN	1615530	5 A	11-05-2005
				JP	2005518068	B T	16-06-2005
				US	200508298	5 A1	21-04-2005
	4625149	Α	25-11-1986	 DE	342910	 5 A1	28-02-1985
				JP	6003764	5 A	27-02-1985
IIS	 3878421	Α	15-04-1975	NONE			