

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
30 October 2008 (30.10.2008)

PCT

(10) International Publication Number
WO 2008/130071 A1

(51) International Patent Classification:
H01J 61/06 (2006.01)

(74) Agent: **DAWOOL PATENT AND LAW FIRM**; 7th
Floor, Injung bldg., 830-71, Yeoksam-dong, Gangnam-gu,
Seoul 135-080 (KR).

(21) International Application Number:
PCT/KR2007/002384

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BH, 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, GT, HN, HR, HU, ID, IL, IN,
IS, JP, KE, KG, KM, KN, KP, KZ, LA, LC, LK, LR, LS,
LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ,
NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU,
SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(22) International Filing Date: 15 May 2007 (15.05.2007)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2007-0038723 20 April 2007 (20.04.2007) KR

(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, LV, MC, MT, 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).

(71) Applicant (*for all designated States except US*): **INOVA,
INC.** [KR/KR]; No. 101 Manufacturing Building, Chung
Ju National University, 123, Geomdan-ri Iryu-myeon,
Chungju-si, Chungcheongbuk-do 380-871 (KR).

(72) Inventor; and

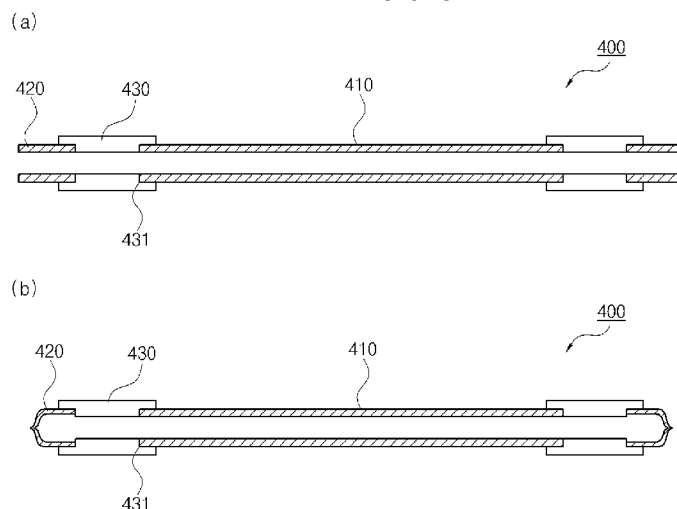
(75) Inventor/Applicant (*for US only*): **YUN, Man Sun**
[KR/KR]; E-302, HANSHIN Villa, 162-30, Yongam-dong,
Sangdang-gu, Cheongju si, Chungcheongbuk-do 360-100
(KR).

Published:

- with international search report
- with amended claims

(54) Title: **FLUORESCENT LAMP HAVING CERAMIC-GLASS COMPOSITE ELECTRODE**

[Fig. 1]



(57) Abstract: Disclosed is a fluorescent lamp having ceramic-glass composite electrodes, which has a higher dielectric constant, higher secondary electron emission, and higher polarization under the same electric field, and thus enables the movement of many more electrons and cations, resulting in high brightness. The fluorescent lamp having ceramic-glass composite electrodes includes a glass tube, which has a phosphor applied on the inner surface thereof and is filled with a mixture of inert gas and metal vapor, both ends of which are sealed; and hollow cylindrical electrodes provided at both ends of the glass tube, each of the hollow cylindrical electrodes having a stepped portion between a central portion thereof and an end portion thereof, and being formed of a ceramic-glass composite. As the material for the electrode, a composite, including a CaO- MgO-SrO-ZrO₂ -TiO₂ ceramic composition and glass frit, is used.

WO 2008/130071 A1