

Title (en)
HIGH-VOLTAGE DISCHARGE LAMP AND LIGHTING DEVICE

Title (de)
HOCHSPANNUNGENTLADUNGSLAMPE UND LEUCHTVORRICHTUNG

Title (fr)
LAMPE A DECHARGE HAUTE TENSION ET DISPOSITIF D'ECLAIRAGE

Publication
EP 1041603 A1 20001004 (EN)

Application
EP 99929830 A 19990714

Priority

- JP 9903797 W 19990714
- JP 21012098 A 19980724

Abstract (en)

The high-pressure discharge lamp of the present invention comprises a light-transmitting ceramic discharge vessel (1), power-supplying conductors (2), a pair of electrodes (3,3), seals made of ceramic-sealing compound (4), and a discharge medium. The light-transmitting ceramic discharge vessel(1) has an inner volume of 0.1 cc or less and comprises a bulging section (1a) and small-diameter cylindrical sections (1b, 1b), the bulging section having both ends narrowed by a continuous curved surface, and the small-diameter cylindrical sections communicating with the ends of the bulging section and having an inner diameter smaller than the bulging section. Power-supplying conductors (2) comprises a seal part (2a) and a halide-resistant part (2b) having a proximal end connected to the distal end of the seal part. The conductors are inserted in small-diameter cylindrical sections (1b) of the light-transmitting ceramic discharge vessel (1), and each of the halide-resistant parts (2b) forms a narrow gap to the inner surface of the small-diameter cylindrical sections (1b). A pair of the electrodes (3) are respectively provided at distal ends of the halide-resistant parts (2b) and positioned in the bulging section (1a) of the light-transmitting ceramic discharge vessel (1), such that a distance d1 of 1.0 mm or more is maintained between the distal ends of the electrodes and the inner surface of the light-transmitting ceramic discharge vessel (1) on a plane which is perpendicular to the axis of the vessel and includes the distal ends of the electrodes. Seals (4) made of ceramic-sealing compound seals respectively the gaps between the small-diameter cylindrical sections (1b) of the light-transmitting ceramic discharge vessel (1) and the seal parts (2a) of the power-supplying conductor(2). The discharge medium contains a metallic halide and is filled in the light-transmitting ceramic discharge vessel (1). <IMAGE>

IPC 1-7
H01J 61/88; H01J 61/36

IPC 8 full level
H01J 61/073 (2006.01); **H01J 61/30** (2006.01); **H01J 61/36** (2006.01); **H01J 61/82** (2006.01); **H01J 61/88** (2006.01)

CPC (source: EP KR)
H01J 61/36 (2013.01 - EP KR); **H01J 61/827** (2013.01 - EP); **H01J 61/073** (2013.01 - EP); **H01J 61/30** (2013.01 - EP)

Cited by
EP1494261B1

Designated contracting state (EPC)
BE DE GB

DOCDB simple family (publication)
WO 0005746 A1 20000203; EP 1041603 A1 20001004; EP 1041603 A4 20011107; JP 2000048769 A 20000218; JP 4297227 B2 20090715; KR 100354851 B1 20021005; KR 20010023968 A 20010326

DOCDB simple family (application)
JP 9903797 W 19990714; EP 99929830 A 19990714; JP 21012098 A 19980724; KR 20007002683 A 20000314