

Title (en)

Electric discharge tubes or discharge lamps, flat panel display, low-temperature cathode and method for their fabrication

Title (de)

Elektrische Entladungsröhre oder Entladungslampe, Flachbildschirm, Niedertemperaturkathode und Verfahren zu deren Herstellung

Title (fr)

Tubes à décharge électrique ou lampes à décharge électrique, écran plat d'affichage, cathode à basse température et leur procédé de fabrication

Publication

**EP 0741402 B1 20030827 (DE)**

Application

**EP 96201180 A 19960429**

Priority

DE 19515596 A 19950502

Abstract (en)

[origin: EP0741402A2] The electric discharge tube or lamp or the flat screen with or without low temp. cathodes has a holder. It is also provided with heating or cooling. A conductive lining is applied to the holder. The device also has a substrate with a dispensing material and a cover layer with a nanostructure of ultra-fine particles. The cover layer has a surface layer of an emitter complex. The complex is formed of an emission material with several components. To manufacture such a low temp. cathode, a preliminary body with a holder, a conductive liner, a substrate and a cover layer is manufactured in a first step. In a second step, the emitter complex is formed as a surface layer on the cover layer.

IPC 1-7

**H01J 1/30**; **H01J 9/02**; **H01J 61/06**

IPC 8 full level

**H01J 1/30** (2006.01); **H01J 1/304** (2006.01); **H01J 9/02** (2006.01); **H01J 29/04** (2006.01); **H01J 31/12** (2006.01); **H01J 61/06** (2006.01); **H01J 63/02** (2006.01)

CPC (source: EP US)

**H01J 1/304** (2013.01 - EP US); **H01J 61/06** (2013.01 - EP US); **Y10S 977/939** (2013.01 - EP US)

Cited by

US5695802A; EP0878829A3

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 0741402 A2 19961106**; **EP 0741402 A3 19971126**; **EP 0741402 B1 20030827**; DE 19515596 A1 19961107; DE 59610682 D1 20031002; JP H08306301 A 19961122; US 5866975 A 19990202

DOCDB simple family (application)

**EP 96201180 A 19960429**; DE 19515596 A 19950502; DE 59610682 T 19960429; JP 11158496 A 19960502; US 64308996 A 19960430