

Title (en)

Photoelectron emitting structure, and electron tube and photodetecting device using the photoelectron emitting structure.

Title (de)

Fotoelektronen emittierende Struktur und Elektronenröhre und Fotodetektorvorrichtung zur Verwendung der Fotoelektronen emittierenden Struktur.

Title (fr)

Structure émettrice de photoélectrons et tube à électrons et dispositif photodétecteur utilisant cette structure.

Publication

EP 0558308 B1 19950510 (EN)

Application

EP 93301385 A 19930224

Priority

JP 3782392 A 19920225

Abstract (en)

[origin: EP0558308A1] The conventional photoemitting surfaces cannot efficiently absorb incident long-wavelength photons. In the photoemitting surface according to this invention, the absorption of incident photons, and the generation of electron-hole pairs take place between sub-bands of conduction bands or between sub-bands and the bottoms of the conduction bands, and the generated photoelectrons are further accelerated by a internal electric field. Accordingly the photoemitting surface can be sensitive to incident long-wavelength photons. In the electron tubes using the photoemitting surface according to this invention, and the photodetecting devices using these electron tubes, photometry, imaging, etc. can be effectively performed at low illuminance. <IMAGE>

IPC 1-7

H01J 1/34; **H01J 40/06**

IPC 8 full level

H01J 1/34 (2006.01); **H01J 29/38** (2006.01)

CPC (source: EP)

H01J 1/34 (2013.01); **H01J 2201/3423** (2013.01)

Cited by

EP1513185A4; CN102306600A; EP4002418A1; EP0810621A1; US5923045A; EP0642147A1; US5591986A; US5747826A; EP3863038A1; US6054718A; US6002141A; EP0729169A3; CN114097057A; US2022319794A1; WO2021156442A1; WO2022102268A1; WO9950875A1; WO2020262254A1; EP3863038B1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0558308 A1 19930901; **EP 0558308 B1 19950510**; DE 69300145 D1 19950614; DE 69300145 T2 19951012; JP H05234501 A 19930910

DOCDB simple family (application)

EP 93301385 A 19930224; DE 69300145 T 19930224; JP 3782392 A 19920225