Title (en)

ELECTRON EMISSION ELEMENT

Publication

EP 0259878 A3 19900124 (EN)

Application

EP 87113260 A 19870910

Priority

- JP 1819187 A 19870130
- JP 21282186 A 19860911
- JP 23450186 A 19861003
- JP 28424086 A 19861201
- JP 29768386 A 19861216

Abstract (en)

[origin: EP0259878A2] An electron emission element comprises a P-type semiconductor substrate (1) and electrodes (2, 3) formed on both ends of the semiconductor substrate. A voltage is applied between said electrodes. The P-type semiconductor substrate is irradiated with light to emit the electrons, generated in the P-type semiconductor substrate by photoexcitation, from an electron emitting face (4) at an end of the P-type semiconductor substrate.

IPC 1-7

H01J 1/34; H01J 1/30

IPC 8 full level

H01J 1/308 (2006.01); **H01J 1/34** (2006.01)

CPC (source: EP)

H01J 1/308 (2013.01); **H01J 1/34** (2013.01); H01J 2201/3423 (2013.01)

Citation (search report)

- [Y] US 3872489 A 19750318 - HAGENLOCHER ARNO K
- [Y] EP 0041119 A1 19811209 - IBM [US]
- [Y] FR 1460237 A 19661125 - MATSUSHITA ELECTRIC IND CO LTD
- [A] US 3624273 A 19711130 - GALE ALFRED J
- [A] US 3119947 A 19640128 - ADOLF GOETZBERGER

Cited by

EP0721654A4; EP1939917A3; EP0627756A1; US5471051A; GB2271464A; US6057639A; EP0642147A1; US5591986A; US5747826A; EP0592731A1; US5336902A; US8421354B2

Designated contracting state (EPC)

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