

Title (en)
ELECTRON EMISSION ELEMENT

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EP 87113260 A 19870910

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• 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.

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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;
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