

Title (en)

Semiconductor electron emission device.

Title (de)

Halbleiter-Elektronenemittierende Einrichtung.

Title (fr)

Dispositif semiconducteur émetteur d'électrons.

Publication

EP 0504603 A1 19920923 (EN)

Application

EP 92102746 A 19920219

Priority

- JP 4557991 A 19910220
- JP 5559791 A 19910228
- JP 23445691 A 19910913
- JP 23445791 A 19910913

Abstract (en)

On a high density p-type semiconductor substrate, a high density p-type semiconductor region and a p-type semiconductor region 104 for supplying carriers to the high density p-type semiconductor region are disposed in contact, further, a p-type semiconductor region and a low density p-type semiconductor region are disposed outwardly around the high density p-type semiconductor region and the p-type semiconductor region, and on a surface of device, a Schottky electrode which is a metallic film for forming the Schottky barrier junction with the high density p-type semiconductor region is disposed. The density relation between carrier densities of the semiconductor regions is such that high density p-type semiconductor region > p-type semiconductor region > p-type semiconductor region > low density p-type semiconductor region. <IMAGE>

IPC 1-7

H01J 1/30; H01J 9/02

IPC 8 full level

H01J 1/308 (2006.01)

CPC (source: EP)

H01J 1/308 (2013.01)

Citation (search report)

- [A] US 4801994 A 19890131 - VAN GORKOM GERARDUS G P [NL], et al
- [AD] EP 0331373 A2 19890906 - CANON KK [JP]
- [AD] US 4303930 A 19811201 - VAN GORKOM GERARDUS G P, et al

Cited by

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Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU NL PT SE

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