

Title (en)

AMORPHIC DIAMOND FILM FLAT FIELD EMISSION CATHODE

Title (de)

FLACHFELDEMISSIONSKATHODE AUS AMORPHEN DIAMANT

Title (fr)

CATHODE PLATE A EMISSION DE CHAMP POURVUE D'UNE PELLICULE DE DIAMANT AMORPHE

Publication

EP 0730780 A4 19960722 (EN)

Application

EP 94905336 A 19931206

Priority

- US 9311845 W 19931206
- US 7115793 A 19930602

Abstract (en)

[origin: WO9428571A1] A field emission cathode includes a layer of conductive material (14) and a layer of amorphous diamond film (12), functioning as a low effective work-function material, deposited over the conductive material to form emission sites. The emission sites each contain at least two sub-regions having differing electron affinities.

IPC 1-7

H01J 19/24; **H01J 1/30**; **H01J 61/067**

IPC 8 full level

H01J 1/304 (2006.01); **H01J 31/12** (2006.01); **H01J 61/067** (2006.01); **H01J 63/06** (2006.01)

CPC (source: EP KR)

H01J 1/304 (2013.01 - EP); **H01J 19/24** (2013.01 - KR); **H01J 31/127** (2013.01 - EP); **H01J 61/0677** (2013.01 - EP); **H01J 63/06** (2013.01 - EP); **H01J 2201/304** (2013.01 - EP); **H01J 2201/30426** (2013.01 - EP); **H01J 2201/30457** (2013.01 - EP); **H01J 2329/8625** (2013.01 - EP)

Citation (search report)

- [E] EP 0609532 A1 19940810 - MOTOROLA INC [US]
- [A] US 5180951 A 19930119 - DWORSKY LAWRENCE N [US], et al
- [A] US 5199918 A 19930406 - KUMAR NALIN [US]
- [A] WANG C ET AL: "COLD FIELD EMISSION FROM CVD DIAMOND FILMS OBSERVED IN EMISSION ELECTRON MICROSCOPY", 1 August 1991, ELECTRONICS LETTERS, VOL. 27, NR. 16, PAGE(S) 1459 - 1461, XP000259873
- See references of WO 9428571A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

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DOCDB simple family (application)

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