

Title (en)

Display device using field emission excited cathode luminescence.

Title (de)

Bildanzeigevorrichtung mittels feldemissions angeregter Kathodolumineszenz.

Title (fr)

Dispositif de visualisation par cathodoluminescence excitée par émission de champ.

Publication

EP 0172089 A1 19860219 (FR)

Application

EP 85401521 A 19850723

Priority

FR 8411986 A 19840727

Abstract (en)

[origin: EP0172089B1] 1. Display unit comprising a plurality of elementary patterns each having an anode (20) comprising a cathodoluminescent layer (34), and a cathode (18) able to emit electrons, each cathode comprising a plurality of electrically interconnected micropoints (22) subject to an electron emission by field effect when the cathode is negatively polarized with respect to the corresponding anode, characterized in that each anode (20) is integrated into the corresponding cathode (18) and electrically insulated therefrom, each anode having holes (37) facing micropoints, in such a way that the electrons emitted by the micropoints traverse the holes and then return to the cathodoluminescent layer (34) and strike the latter around the holes (37).

Abstract (fr)

Dispositif de visualisation par cathodoluminescence excitée par émission de champ. Il comprend une pluralité de motifs élémentaires comportant chacun une anode cathodoluminescente (20) et une cathode (18) apte à émettre des électrons. Chaque cathode comprend une pluralité de micropointes (22) électriquement reliées entre elles et sujettes à une émission d'électrons par effet de champ lorsque la cathode est polarisée négativement par rapport à l'anode correspondante, les électrons venant frapper cette dernière qui est alors sujette à une émission de lumière. Chaque anode (20) est intégrée à la cathode correspondante (18). Application à l'affichage d'images fixes ou animées.

IPC 1-7

H01J 31/12; **H01J 29/48**

IPC 8 full level

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CPC (source: EP US)

H01J 31/127 (2013.01 - EP US); **H01J 31/15** (2013.01 - EP US)

Citation (search report)

- [A] US 3921022 A 19751118 - LEVINE JULES DAVID
- [A] US 3500102 A 19700310 - CROST MUNSEY E, et al
- [A] US 3622828 A 19711123 - ZINN MORTIMER H
- [A] FR 2443085 A1 19800627 - THOMSON CSF
- [A] US 2926286 A 19600223 - SKELLETT ALBERT M
- [A] FR 2437661 A1 19800425 - SMITHS INDUSTRIES LTD [GB]

Cited by

US4857161A; US5055077A; US5218273A; US5136764A; US5075595A; US5079476A; EP0616356A1; FR2702869A1; US5717285A; US5019003A; US5461280A; US5140219A; GB2261766B; EP0349425A1; FR2633763A1; US5225820A; US4857799A; US5432407A; FR2662301A1; EP0385764A1; US5176557A; EP0713241A3; US5157309A; EP0278405A3; AU631327B2; US5173634A; US5030921A; US5007873A; FR2641108A1; EP0541394A1; US5587720A; US5173635A; EP0354750A3; US5201681A; US5281890A; US5142184A; US4956574A; EP0272178A1; FR2607623A1; US4835438A; US6236381B1; US6208072B1; US6278235B1; FR2734073A1; FR2734074A1; FR2731101A1; FR2691567A1; EP0557191A1; FR2687841A1; US5394066A; US5148078A; EP0899770A1; US5212426A; US5142256A; EP0513777A3; US5386172A; US5465024A; GB2209432A; US4983878A; GB2209432B; WO8801098A1; WO9610835A1; US6320310B1; US6630782B1; EP0234989B1

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