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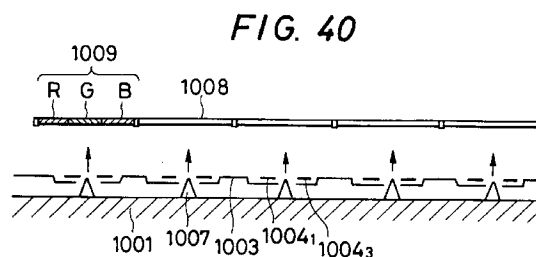
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(54) **A display device comprising an electron emission element**

(57) A multi type electron emission element comprises a plurality of electrodes formed on a deposition surface of an insulating material and each having a conical portion of a single crystal, an insulating layer formed on the deposition surface and having openings respectively centered on the conical portions, and a deriving electrodes, part of which is formed near at least the conical portions, the deriving electrode being formed on the insulating layer.



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## EUROPEAN SEARCH REPORT

Application Number  
EP 96 10 0917

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                      |                                                  |                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------|
| Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Citation of document with indication, where appropriate, of relevant passages                                                                                                                                                        | Relevant to claim                                | CLASSIFICATION OF THE APPLICATION (Int.Cl.4) |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | EP-A-0 172 089 (COMMISSARIAT ENERGIE ATOMIQUE) 19 February 1986<br>* figure 3 *<br>* page 8, line 26 - page 9, line 11 *<br>* page 10, line 28 - page 11, line 16 *<br>* page 16, line 17 - line 26 *<br>---                         | 1                                                | H01J31/12<br>H01J1/30                        |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | US-A-3 970 887 (SMITH DONALD O ET AL) 20 July 1976<br>* figures 1G,3D,7 *<br>* column 2, line 19 - line 23 *<br>* column 2, line 35 - line 65 *<br>* column 5, line 42 - column 6, line 7 *<br>* column 9, line 4 - line 16 *<br>--- | 1                                                |                                              |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | EP-A-0 030 465 (TOKYO SHIBAURA ELECTRIC CO) 17 June 1981<br>* claim 2 *<br>---                                                                                                                                                       | 1                                                |                                              |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | US-A-4 168 213 (HOEBERECHTS ARTHUR M E) 18 September 1979<br>* column 2, line 32 - line 48 *<br>* column 2, line 61 - line 66 *<br>* column 3, line 6 - line 46 *<br>* claim 2; figure 7 *<br>-----                                  | 1                                                |                                              |
| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                      |                                                  |                                              |
| Place of search<br>THE HAGUE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                      | Date of completion of the search<br>9 April 1996 | Examiner<br>Colvin, G                        |
| <p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone<br/>Y : particularly relevant if combined with another document of the same category<br/>A : technological background<br/>O : non-written disclosure<br/>P : intermediate document</p> <p>T : theory or principle underlying the invention<br/>E : earlier patent document, but published on, or after the filing date<br/>D : document cited in the application<br/>L : document cited for other reasons<br/>-----<br/>&amp; : member of the same patent family, corresponding document</p> |                                                                                                                                                                                                                                      |                                                  |                                              |

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