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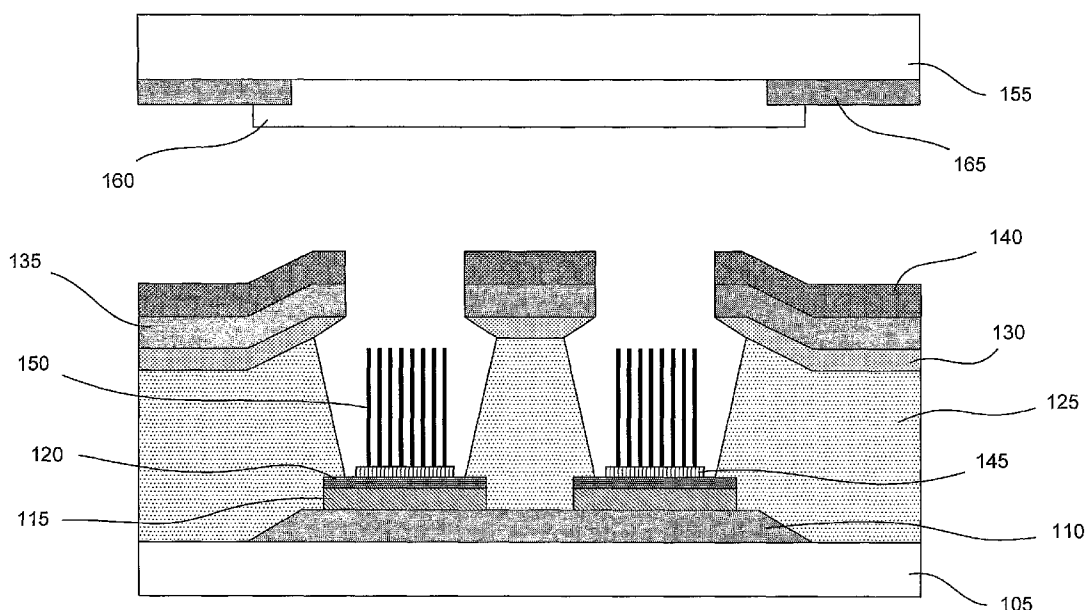
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ning of each regular issue of the PCT Gazette.

(54) Title: CATHODE STRUCTURE FOR FIELD EMISSION DEVICE



(57) Abstract: To avoid arcing and shorting within a field emission device, a bottom portion of a gate electrode is protected with an insulating material to avoid or reduce arcing among the electrodes and the electron emitters in the device. In a method for manufacturing such a field emission device, an emitter hole is formed through an insulating layer such that a portion of the gate electrode overhangs the hole and is protected on its underside by the insulating layer. The device can be used in display systems, such as CNT flat panel displays.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/34691

A. CLASSIFICATION OF SUBJECT MATTER

IPC: **H01J 1/62**(2006.01)

USPC: 313/497

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 313/495-497

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2003/0117055 A1 (SCHUELLER et al) 26 June 2003 (26.06.2003), see entire document.	1-24
Y	US 5,973,444 A (XU et al) 26 October 1999 (26.10.1999), Figures 1, 10; column 1, line 61 - column 2, line 29; column 9, lines 53-61.	1-24
A	US 5,886,460 A (JONES et al) 23 March 1999 (23.03.1999), see entire document.	1-24
A	US 6,008,576 A (NAKATANI et al) 28 December 1999 (28.12.1999), see entire document.	1-24
A	US 6,075,315 A (SEKO et al) 13 June 2000 (13.06.2000), see entire document.	1-20
A	US 6,181,060 B1 (ROLFSON) 30 January 2001 (30.01.2001), see entire document.	1-24

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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Continuation of B. FIELDS SEARCHED Item 3:

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