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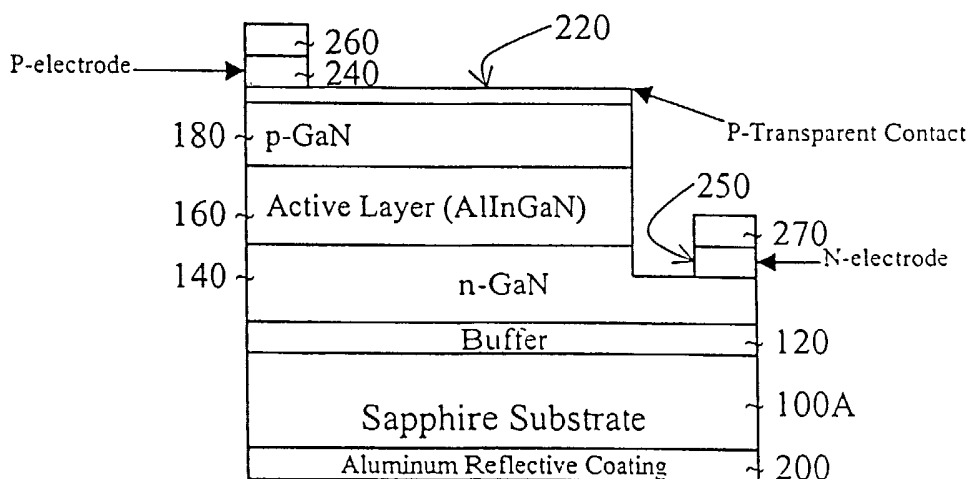
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(54) Title: METHOD OF MAKING DIODE HAVING REFLECTIVE LAYER



(57) Abstract: A method of forming a light emitting diode includes forming a transparent substrate (100A) and a GaN buffer layer (120) on the transparent substrate (100A). An n-GaN layer (140) is formed on the buffer layer (120). An active layer (160) is formed on the n-GaN layer (140). A p-GaN layer (180) is formed on the active layer (160). A p-electrode (240) is formed on the p-GaN layer (180) and an n-electrode (250) is formed on the n-GaN layer (140). A reflective layer (200) is formed on a second side of the transparent substrate (100A). A scribe line (not shown) is formed on the substrate (100A) for separating the diodes on the substrate. Also, a cladding layer of AlGaIn (not shown) is between the p-GaN layer and the active layer.



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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01L 21/00, 21/46, 21/78, 21/301

US CL : 438/33, 34, 42, 460, 462, 478

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)

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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)
USPTO APS EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	US 6,379,985 B1 (CERVANTES et al) 30 April 2002 (30.04.02), column 3, lines 30-49; column 5, lines 33-37; column 7, lines 40-45; column 9, lines 5-11; column 10, lines 55-67; column 11, lines 7-19.	1-60
A	US 6,194,742 B1 (KERN et al) 27 February 2001 (27.02.2001), see entire document.	1-60
A,P	US 6,388,275 B1 (KANO) 14 May 2002 (14.05.2002), see entire document.	1-60
Y	US 5,103,269 A (TOMOMURA et al) 07 April 1992 (07.04.1992), column 7, lines 1-67.	1-60

Further documents are listed in the continuation of Box C. See patent family annex.

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"O" document referring to an oral disclosure, use, exhibition or other means	
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