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(71) Applicant (for all designated States except US): **CREE, INC.** [US/US]; 4600 Silicon Drive, Durham, NC 27703 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **NEGLEY, Gerald, H.** [US/US]; 306 N. Estes Drive, Estes Park Apartment I-14, Carrboro, NC 27510 (US).

(74) Agent: **MYERS BIGEL SIBLEY & SAJOVEC, P.A.;** P.O. Box 37428, Raleigh, NC 27627 (US).

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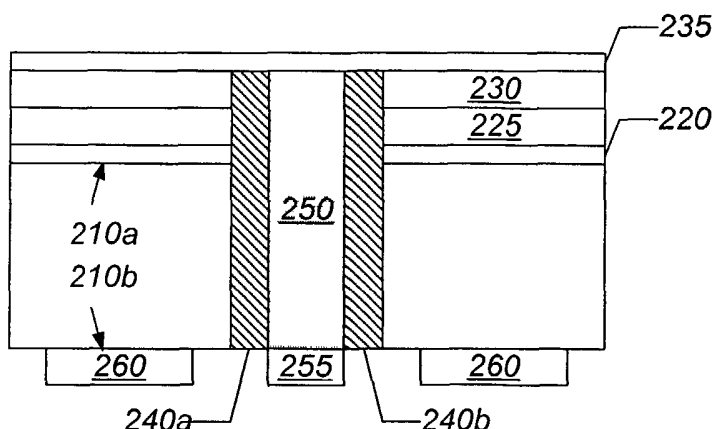
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(54) Title: LIGHT-EMITTING DEVICES HAVING COPLANAR ELECTRICAL CONTACTS ADJACENT TO A SUBSTRATE SURFACE OPPOSITE AN ACTIVE REGION AND METHODS OF FORMING THE SAME



(57) Abstract: A light-emitting device includes a substrate (205) having first (210a) and second (210b) opposing surfaces. An active region is on the first surface (210a) and first (255) and second (260) electrical contacts are adjacent to the second surface (210b) and are conductively coupled to the active region. In other embodiments, a light-emitting device includes a substrate (205) having first (210a) and second (210b) opposing surfaces. An active region is on the first surface (210a) and includes a first active layer (225) having a first conductivity type on the first surface and a second active layer (230) having a second conductivity type on the first active layer. A first electrical contact (255) is adjacent to the second surface. A contact plug (250) extends through the substrate and the active region and couples the first electrical contact (255) to the second active layer (230). A second electrical contact (260) is coupled to the substrate (205) at the second surface (210b).

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01L33/00

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)

IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/117681 A1 (LINTHICUM KEVIN J ET AL) 29 August 2002 (2002-08-29)	1-4, 7-21, 24-36, 39-46
A	paragraph '0025! - paragraph '0060!; figure 8	5,6,22, 23,37,38
X	PATENT ABSTRACTS OF JAPAN vol. 1995, no. 04, 31 May 1995 (1995-05-31) -& JP 07 030153 A (HITACHI CABLE LTD), 31 January 1995 (1995-01-31)	16,17, 41,42
A	abstract	1-15, 18-40, 43-46
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Patent family members are listed in annex.

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Krause, J

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	EP 1 079 444 A (TOYODA GOSEI KK) 28 February 2001 (2001-02-28) paragraph '0018! - paragraph '0037!; figure 1 -----	16,17, 41,42 1-15, 18-40, 43-46
A	US 6 303 485 B1 (LIU WENG MING ET AL) 16 October 2001 (2001-10-16) column 1, line 10 - column 2, line 59; figure 1 -----	5,6,22, 23,37,38
A	US 2002/135069 A1 (SHEN HONG ET AL) 26 September 2002 (2002-09-26) paragraph '0013! - paragraph '0033!; figures 1-8 -----	

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