US009543476B2

(12) **United States Patent**
Park et al.

(10) **Patent No.: US 9,543,476 B2**
(45) **Date of Patent: Jan. 10, 2017**

(54) **UV LIGHT EMITTING DIODE AND METHOD OF FABRICATING THE SAME**

(71) Applicant: **Seoul Viosys Co., Ltd.**, Ansan-si (KR)

(72) Inventors: **Ki Yon Park**, Ansan-si (KR); **Jeong Hun Heo**, Ansan-si (KR); **Hwa Mok Kim**, Ansan-si (KR); **Chang Suk Han**, Ansan-si (KR); **Hyo Shik Choi**, Ansan-si (KR)

(73) Assignee: **SEOUL VIOSYS CO., LTD.**, Ansan-si (KR)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/556,033**

(22) Filed: **Nov. 28, 2014**

(65) **Prior Publication Data**

US 2015/0144874 A1 May 28, 2015

(30) **Foreign Application Priority Data**

Nov. 27, 2013 (KR) 10-2013-0145122

(51) **Int. Cl.**
H01L 33/06 (2010.01)
H01L 33/32 (2010.01)

(52) **U.S. Cl.**
CPC ***H01L 33/32*** (2013.01); ***H01L 33/06*** (2013.01)

(58) **Field of Classification Search**
CPC H01L 33/0025; H01L 33/06; H01L 33/32; H01L 33/00; H01L 33/02; H01L 33/04; H01L 33/12
See application file for complete search history.

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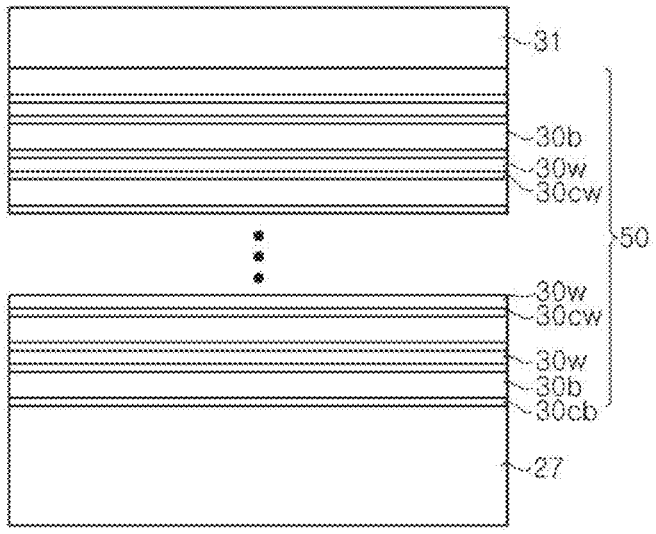
Primary Examiner — Fazli Erdem
(74) *Attorney, Agent, or Firm* — Perkins Coie LLP

(57) **ABSTRACT**

A UV light emitting diode and a method of fabricating the same are provided. The light emitting diode includes an active area between an n-type nitride-based semiconductor layer and a p-type nitride-based semiconductor layer, wherein the active area includes a plurality of barrier layers containing Al, a plurality of well layers containing Al and alternately arranged with the barrier layer, and at least one conditioning layer. Each conditioning layer is placed between the well layer and the barrier layer adjacent to the well layer and is formed of a binary nitride semiconductor. The design of the conditioning layer can reduce stress of the active area while allowing uniform control of the composition of the well layers and/or the barrier layers.

18 Claims, 6 Drawing Sheets