(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
22 March 2007 (22.03.2007)

PCT

(10) International Publication Number
WO 2007/032546 A1

(51) International Patent Classification:
H01L 33/00 (2006.01)

(21) International Application Number:
PCT/JP2006/318658

(22) International Filing Date:
14 September 2006 (14.09.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2005-270565 16 September 2005 (16.09.2005) JP
60/721,590 29 September 2005 (29.09.2005) US

(71) Applicant *(for all designated States except US)*: **SHOWA DENKO K.K.** [JP/JP]; 13-9, Shibadaimon 1-chome, Minato-ku, Tokyo 105-8518 (JP).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **OSAWA, Hiroshi** [JP/JP]; c/o Showa Denko K.K., 5-1, Yawata Kaigan dori, Ichihara-shi, Chiba 290-0067 (JP). **HODOTA, Takashi** [JP/JP]; c/o Showa Denko K.K., 5-1, Yawata Kaigan dori, Ichihara-shi, Chiba 290-0067 (JP).

(74) Agents: **SHIGA, Masatake** et al.; 2-3-1 Yaesu, Chuo-ku, Tokyo 104-8453 (JP).

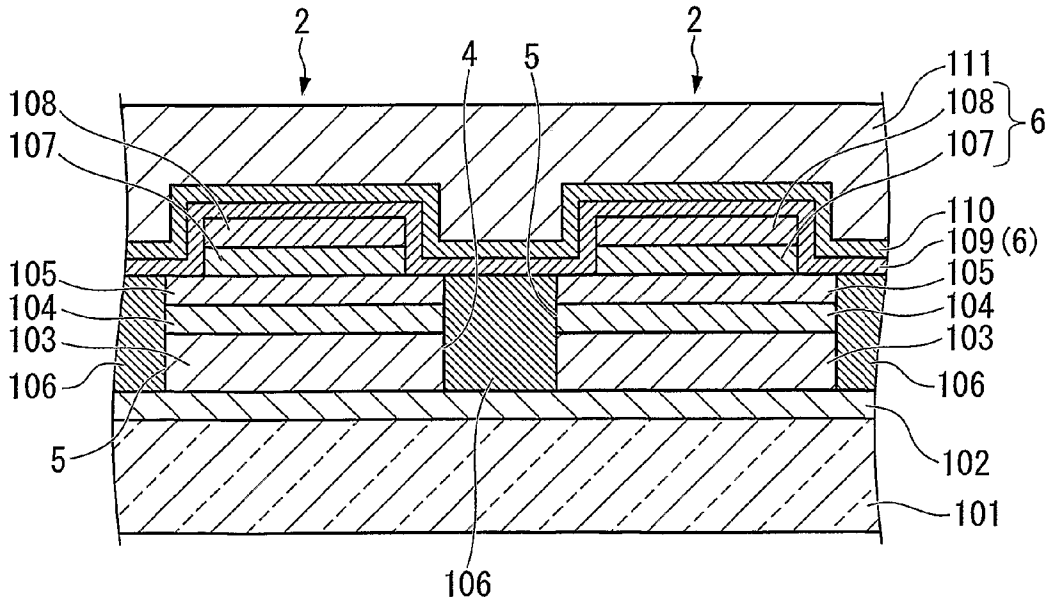
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

[Continued on next page]

(54) **Title:** PRODUCTION METHOD FOR NITRIDE SEMICONDUCTOR LIGHT EMITTING DEVICE



(57) **Abstract:** The present invention provides a production method for a nitride semiconductor light emitting device, which warps less after removing the substrate, and which can emit light from the side thereof; specifically, the present invention provides a production method for a nitride semiconductor light emitting device comprising: forming stacked layers by stacking at least an n-type semiconductor layer, a light emitting layer, and a p-type semiconductor layer on a substrate in this order; forming grooves which divide the stacked layers so as to correspond to nitride semiconductor light emitting devices to be produced; filling the grooves with a sacrifice layer; and forming a plate layer on the p-type semiconductor layer and the sacrifice layer by plating.

WO 2007/032546 A1

WO 2007/032546 A1

(48) Date of publication of this corrected version:
3 April 2008

(15) Information about Correction:
see Notice of 3 April 2008