

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
05 June 2025 (05.06.2025)



(10) International Publication Number
WO 2025/114573 A1

(51) International Patent Classification:

H10H 20/01 (2025.01) H10H 20/825 (2025.01)
H10H 20/817 (2025.01)

(21) International Application Number:

PCT/EP2024/084174

(22) International Filing Date:

29 November 2024 (29.11.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2318362.7 30 November 2023 (30.11.2023) GB

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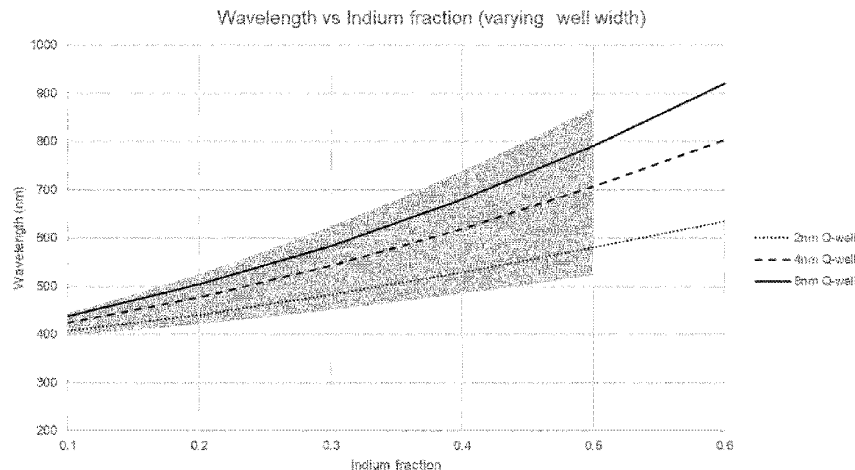
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST,

(54) Title: LIGHT EMITTING DIODE AND METHOD FOR MANUFACTURING A LIGHT EMITTING DIODE

Fig. 53



(57) Abstract: A light emitting diode comprises an n-type cubic GaN-based layer, a p-type cubic GaN-based layer and an active region formed between the n-type and p-type cubic GaN-based layers. The active region comprises at least one quantum well, formed of cubic $\text{In}_x\text{Ga}_{1-x}\text{N}$ -based material with thickness t_{QW} . The in-plane area of the active region is not more than $10,000 \mu\text{m}^2$. The light emitting diode has an electroluminescence peak wavelength in the range 600-750 nm. The thickness t_{QW} and indium content x satisfy the following relationships: $t_{\text{QW}} \geq 2.5 \text{ nm}$; $t_{\text{QW}} \leq 10 \text{ nm}$; $x \geq 0.1$; $x \leq 0.5$.

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SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

Published:

— *with international search report (Art. 21(3))*