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

(51) International Patent Classification[7]: H01L 33/00

A1

(11) International Publication Number: WO 00/39860

(43) International Publication Date: July 6 2000 (07.06.00)

(21) International Application Number: PCT/RU99/00245

(22) International Filing Date: July 27 1999 (07.27.99)

(30) Priority Data:

98123248 December 29 1998 (12.29.98) RU

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(81) Designated States: AL, AM, AT, AU, BA, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MK, MN, MX, NO, NZ, PL, PT, RO, SD, SE, SG, SI, SK, TJ, TM, TR, UA, US, UZ, VN, YU, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), European patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), OAPI Patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published

With international search report.

With amended claims and explanation.

(54) Title: INJECTION INCOHERENT EMITTER [original English title: INJECTION NON-COHERENT EMITTER]

[see Russian original for figure]

(57) Abstract [original English abstract]

The present invention relates to an injection non-coherent emitter that ensures the output of a directed, spontaneous and outflowing radiation at reduced divergence angles with increased external efficiency as well as with increased energetic and luminous power. This emitter includes, in the whole heterostructure (2), a plurality of layers and sublayers having compositions and thicknesses that lay within predetermined ranges, and also includes a plurality of layers for the radiation output area (7). This invention also relates to different modifications in the heterostructure and the output area which allow for the output of the radiation in different controlled directions, including in a direction perpendicular to the active layers of said emitters. This invention further relates to multiple-beam non-coherent emitters, including radiating rulers and matrices having autonomously controlled beams.

(57) **Abstract** [translation of original Russian abstract]

An injection incoherent emitter that provides output of outgoing directional spontaneous emission with small angles of divergence, increased external efficiency, power, and optical power, that includes specified ranges of compositions and thicknesses of the layers and sublayers of the entire heterostructure (2) and also the layers of the radiation output region (7). Various modifications are proposed for the heterostructure and the output region, in order to achieve the ability to realize radiation output in different controllable directions, including in the direction perpendicular to the active layer for the proposed emitters. Multibeam incoherent emitters are also proposed, including linear and two-dimensional emitter arrays with independently controllable beams.

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