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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H01S 3/19		A1	(11) International Publication Number: WO 97/50159
			(43) International Publication Date: 31 December 1997 (31.12.97)
(21) International Application Number: PCT/US97/00612			(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).
(22) International Filing Date: 16 January 1997 (16.01.97)			
(30) Priority Data: 60/020,893 27 June 1996 (27.06.96) US 08/726,618 7 October 1996 (07.10.96) US			
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(54) Title: Be-CONTAINING II-VI BLUE-GREEN LASER DIODES ✓

(57) Abstract

A II-VI compound semiconductor laser diode (10) includes a plurality of II-VI semiconductor layers forming a pn junction supported by a single crystal GaAs semiconductor substrate (12). The layers formed in the pn junction include a first cladding layer (20) of a first conductivity type, a second cladding layer (22) of a second conductivity type, and at least a first guiding layer (14) between the first and second cladding layers (20, 22). A quantum well active layer (18) is positioned within the pn junction. Electrical energy is coupled to the laser diode (10) by first and second electrodes (40, 41). Various layers (14, 16, 20, 22, 36, 38) in the laser diode are formed using Be.

