

Title (en)  
SEMICONDUCTOR LASER DEVICE

Title (de)  
HALBLEITERLASERGERÄT

Title (fr)  
DISPOSITIF LASER A SEMICONDUCTEUR

Publication  
**EP 0956623 A1 19991117 (EN)**

Application  
**EP 98903741 A 19980127**

Priority

- JP 1631397 A 19970130
- US 9801494 W 19980127

Abstract (en)  
[origin: WO9834304A1] A method for fabricating a semiconductor laser diode and the laser diode constructed therewith. A laser diode according to the present invention is constructed by depositing a buffer layer (9) on a substrate (8). A crystalline layer (10-13) is then deposited on the buffer layer (9). The crystalline layer (10-13) includes the waveguide for the laser. A portion (110) of the buffer layer (9) is etched from under the crystalline layer (10-13) leaving a portion (110) of the crystalline layer (10-13) cantilevered over the substrate (8). The crystalline layer (10-13) is then cleaved in the cantilevered portion (110) to generate a reflecting surface (15) for reflecting light generated in the waveguide. This method is well suited for GaN based laser diodes that are to be constructed on sapphire substrates.

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