

Title (en)  
ELECTRO OPTIC MODULATOR

Title (de)  
ELEKTROOPTISCHER MODULATOR

Title (fr)  
MODULATEUR ELECTRO-OPTIQUE

Publication  
**EP 1125151 A1 20010822 (EN)**

Application  
**EP 99936856 A 19990802**

Priority  
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• GB 9817555 A 19980813

Abstract (en)  
[origin: GB2340616A] A doped substrate (12) is described for use around a ridge waveguide (10), for controlling the refractive index of the waveguide material. Instead of simply diffusing dopant in from a surface of the substrate (12) adjacent the waveguide (10), an area of the substrate is etched and dopant diffused in from a side face of the etched region (28, 30). Thus, the dopant profile is established from a horizontal direction, allowing the profile to be controlled. A simple vertically uniform doping profile (12) can thus be provided, leading to a vertically uniform current density, or an anisotropic wet etch can be applied after the initial etch to provide a profile (36) which concentrates the current density at a selected height in the substrate.

IPC 1-7  
**G02B 6/12; G02F 1/025**

IPC 8 full level  
**G02F 1/025** (2006.01)

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