

24 MAY 2002



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STATEMENT UNDER ART. 19(1)



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This invention relates to the formation of light absorbing areas by doping selected areas of the substrate. The position and location of these areas can thus be controlled and they can be accurately formed using well-known processing techniques. The invention is also applicable to optical circuits in which the components of the circuit, e.g. waveguides, and the substrate are formed of the same material, e.g. silicon. The prior art does not provide these advantages. The doped areas are formed so they are spaced a sufficient distance from the optical components so as not to interfere with their operation, e.g. so as not to attenuate an optical signal transmitted along a waveguide (as a proportion of the signal is carried in areas of the substrate adjacent the component structure, such as the waveguide ridge or core, used to guide the wave). This overcomes a significant disadvantage of the prior art.