Claims

1. A structure for guiding electromagnetic radiation, comprising:

a substrate (230);

a waveguide (220) provided on the substrate and having a first end (220a) for receiving electromagnetic radiation of wavelength λ and a second end (220b); and

an anti-reflection region (~~1~~2270) provided at the second end (220b) of the waveguide on the substrate, ~~the length and the width of~~ the anti-reflection region being ~~optimised~~configured to suppress back reflection of the electromagnetic radiation of wavelength λ that reaches the second end,

wherein the width (Wa) of the anti-reflection region is substantially larger than a wavelength of the electromagnetic radiation in the anti-reflection region, and the length of the anti-reflection region is substantially longer than the wavelength of the electromagnetic radiation in the anti-reflection region.

2. A structure according to claim 1, wherein the anti-reflection region has a width (Wa) substantially wider than a width (Wb) of the waveguide.

~~3. A structure according to claim 1 or 2, wherein the anti-reflection region has a width (Wa) larger than a wavelength of radiation in the anti-reflection region.~~

34. A structure according to claim 1 or 2~~3~~, wherein the anti-reflection region has a width at least 3 times wider than the wavelength of the radiation in the anti-reflection region.

~~5. A structure according to any one of the preceding claims, wherein the anti-reflection section has a length substantially longer than the wavelength of the radiation in the anti-reflection region.~~

46. A structure according to claim 1, 2 or 3~~5~~, wherein the anti-reflection region~~section~~ has a length at least 5 times the ~~predetermined~~ wavelength of the electromagnetic radiation in the anti-reflection region.

57. A structure according to any one of the preceding claims, wherein the waveguide and the anti-reflection region are formed from the same material.

68. A structure according to anyone of the preceding claims, comprising one or more layers forming the waveguide and the anti-reflection region.

79. A structure according to claim 68, wherein the one or more layers comprise a quantum well.

810. A structure according to any one of the preceding claims, wherein the structure comprises semiconductor material.

9. A structure according to any one of the preceding claims, wherein the waveguide is configured to receive electromagnetic radiation in a predetermined range of wavelengths, and the wavelength λ is a mean wavelength of the predetermined range.

1011. A photonic component comprising the structure according to any one of the preceding claims.

1112. A chip comprising the structure according to any one of claims 1 to 910.

1213. A spectrometer comprising the structure according to any one of claims 1 to 910.

1314. A spectrometer according to claim 12, further comprising a plurality of resonators provided on the substrate and being coupled to the waveguide, each of the resonators being resonant at a predetermined wavelength of the electromagnetic radiation.

1415. A spectrometer according to claim 1314, wherein the plurality of resonators are disk resonators.