120b. The resonators are arranged such that portions of the light in the waveguide are coupled into the disk resonators 130. Each resonator 130 is arranged to support a resonant mode at a particular wavelength such that only light of that wavelength is coupled into the resonator 130. On top of each disk resonator 130 is an electrode 140 for detecting current that is proportional to the amount of light present in that resonator. The current detected in each resonator therefore indicates the amount of light at that wavelength that was present in the input beam of light. Each electrode 140 is further connected to a signal bond pad150 for connecting the spectrometer 100 to an external device for measuring the current. A portion of the light is not coupled into any of the resonators and reaches the second end 120b of the waveguide. Back-reflections from the end of the waveguide may give rise to interference within the spectrometer chip which degrades the performance of the spectrometer. A low reflective coating 160 is therefore evaporated or sputtered onto the second end 120b of the waveguide to stop back-reflections from light reaching the end of the waveguide. However, the application of the low reflective coating requires an additional processing step in the manufacture of the spectrometer.

The invention aims to improve on the prior art.

SUMMARY OF THE INVENTION

According to the invention, there is provided a structure for guiding electromagnetic radiation, comprising: a substrate; a waveguide provided on the substrate and having a first end for receiving electromagnetic radiation of wavelength λ and a second end; and an anti-reflection region provided at the second end 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 ~~of the waveguide~~in that the anti-reflection region has a width (Wa) substantially wider than the wavelength λ of the electromagnetic radiation in the anti-reflection region and that the anti-reflection region has a length substantially longer than the wavelength λ of the electromagnetic radiation in the anti-reflection region.

The back reflection in the waveguide is reduced as a result of the radiation becoming unguided as it enters the anti-reflection region where the diverging radiation field is absorbed by the material forming the anti-reflection region. By optimising the length and the width of the anti-reflection region, an effective reflectivity of almost 0% can be achieved.