

ABSTRACT**INTEGRATED POLARISATION SPLITTER**

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The invention relates to an integrated polarisation splitter based on a sub-wavelength multimode interference coupler (110), in other words, a multimode interference coupler (110) with an anisotropic multimode waveguide region formed by a plurality of sections of core material (210) and a plurality of sections of a cladding material (230) alternately arranged in a periodic way, with a period (Λ) smaller than the wavelength of a light propagated through said anisotropic region. The core material sections (210) are rotated an angle (α) greater than zero with respect to a perpendicular with an input waveguide (120) to increase the anisotropic character of the multimode waveguide region.

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Fig. 1