

Title (en)
INTERFEROMETRIC DEVICE AND CORRESPONDING SPECTROMETER

Title (de)
INTERFEROMETRISCHE VORRICHTUNG UND ENTSPRECHENDES SPEKTROMETER

Title (fr)
DISPOSITIF INTERFEROMETRIQUE ET SPECTROMETRE CORRESPONDANT

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Application
EP 14734872 A 20140606

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Abstract (en)
[origin: WO2014195655A1] The invention relates to an interferometric device including: a separator (20), for separating a collimated beam (F0) into first (F1) and second (F2) incident beams; at least one transducer (13); and a transparent optical system (10), including at least three planar dioptries (D1, D2, D3). The invention is characterised essentially in that the transducer (13) is based on plasmon resonance and in contact with the dioptrie (D1); the dioptrie (D2) has a network of nanostructures; the optical system (10) and the separator (20) being configured such that the beam (F1) and the beam (F2) undergo total internal reflection on the dioptrie (D1) and on the dioptrie (D3), respectively, prior to interfering on the dioptrie (D2) by total internal reflection and to forming an interferogram in which the central fringe is located at a convergence point (ZOPD).

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