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DI TECNOLOGIA

TITLE

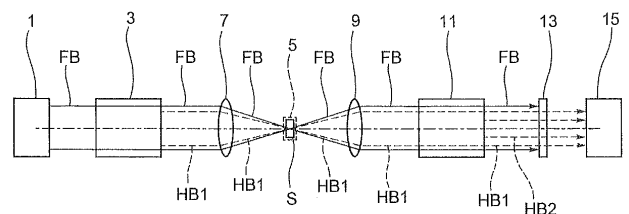
Micro-interferometer for n-th harmonic interference microscopy

INVENTORS

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DESCRIPTION

Device for optically measuring a medium, comprising a light source which provides a fundamental beam (FB) with a first wavelength; a first harmonic generator which generates from the fundamental beam (FB) a first harmonic beam (HB1) with a second wavelength; an optical system, which couples light of the fundamental beam (FB) and the first harmonic beam (HB1) along a single, common light path; a second harmonic generator positioned after the target area; and a detector which detects light from the medium to measure a change in phase of the light interacting with the medium. The optical system comprises an achromatic focusing system and an achromatic collimating system positioned before and after the target area so as to have respective focal points substantially coincident at the target area. The first and second harmonic generators are positioned before the achromatic focusing system and after the achromatic collimating system, respectively.



APPLICATIONS

Microscopy

KEYWORDS

Harmonic interference, microscopy, micro-interferometer

BIBLIOGRAPHIC DATA

Micro-interferometro per microscopia interferenziale in n-esima armonica

Application Number TO2012A000785

Priority Date September 12, 2012

Applicants Fondazione Istituto Italiano di Tecnologia

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