

Title (en)  
DEVICE AND METHOD FOR DETERMINING OPTICAL PATH LENGTHS

Title (de)  
VORRICHTUNG UND VERFAHREN ZUR BESTIMMUNG VON OPTISCHEN WEGLÄNGEN

Title (fr)  
PROCÉDÉ ET DISPOSITIF DE DÉTERMINATION DE PARCOURS OPTIQUES

Publication  
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Application  
**EP 09776327 A 20090120**

Priority  
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Abstract (en)  
[origin: WO2010083847A1] The present invention relates to a method for determining optical path length differences and for optical coherence tomography, having the steps of: generating spatially coherent light by a light source (SQ, BQ) emitting a spatial monomode, or the emission thereof being limited to a single spatial mode by suitable means (F); dividing at least a part of the light coming from said light source into two spatially separated paths; placing a sample (P) to be measured in the measurement path; using at least two detectors (D) or one detector (D, A) having at least two detector elements (D) and further means (S, T, BP, F, Q, L, G, Z) for guiding beams, said means bringing light from a reference path and a measurement path together to the detectors/detector elements (D) and bringing said light to interference; receiving and analyzing the light intensities at the detectors/detector elements (D) in order to obtain a data set; and numerically analyzing and displaying the data set such that conclusions are possible about both the spatial position and the strength of the reflection or scattering of the sample (P) or structures within the sample (P).

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