

Title (en)

METHOD AND DEVICE FOR SUPPRESSING MULTIPLE SCATTERING WHEN EXAMINING TURBID MEDIA BY MEANS OF THREE-DIMENSIONAL CROSS-CORRELATION TECHNIQUE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR UNTERDRÜCKUNG DER MEHRFACHSTREUUNG BEI UNTERSUCHUNGEN AN TRÜBEN MEDIEN MITTELS DREIDIMENSIONALER KREUZKORRELATIONSTECHNIK

Title (fr)

PROCEDE ET DISPOSITIF POUR EMPECHER LA DIFFUSION MULTIPLE LORS D'ANALYSES EFFECTUEES SUR DES SUBSTANCES TROUBLES SELON LA TECHNIQUE DE CORRELATION CROISEE TRIDIMENSIONNELLE

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Application

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Abstract (en)

[origin: WO0190725A2] The invention relates to a portable device for carrying out examinations on turbid media by means of a three-dimensional cross-correlation technique and for suppressing the influence of multiple scattering as well as to an adjusting method for adjusting said device. The inventive device is provided with a base plate (1) on which a laser (2) is disposed which can be adjusted by means of tilting devices or by means of mirrors for directing the laser beam vertically onto the wall of a cuvette (6) filled with a medium to be examined. The device is further provided with a translucent coated plate (7) that is in some sections completely metallized and in other sections partially metallized and that serves as a beam splitter (4). Said plate is firmly linked with the base plate (1) by means of a positioning fixture (8), the support surface (16) of which is disposed at a fixed angle with respect to the base plate (1). The positioning fixture (8) is detachably secured to the base plate (1) and to a cuvette fixture with receptacles for the cuvette (6) and for a cylindrical translucent container (70) filled with a liquid that is arranged on the base plate (1). Displacement devices for the cuvette fixture (5) allow a continuous positioning of the same on the base plate. Tilting and displacement devices for at least two mirrors and at least two detection optics are arranged on a base plate on the detection side of the device so that they can be fixedly positioned and so that the base plate can be firmly locked on the base plate (1). The device further comprises a photon multiplier and correlators for receiving cross- or auto-correlation functions.

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