Title (en)

ASSEMBLY FOR LIGHT SHEET MICROSCOPY

Title (de)

ANORDNUNG ZUR LICHTBLATTMIKROSKOPIE

Title (fr)

SYSTÈME DE MICROSCOPIE À FEUILLE DE LUMIÈRE

Publication

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Application

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Abstract (en)

[origin: WO2015004108A1] The invention relates to an assembly for light sheet microscopy. Said assembly comprises a sample container (1) for receiving a sample (3) present in a medium (2). The sample container (1) is aligned in respect of a flat reference surface. The assembly further comprises illumination optics having an illumination lens (6) for illuminating the sample (3) by means of a light sheet, wherein the optical axis (7) of the illuminating lens (6) and the light sheet lie in a plane which, together with the normals of the reference surface, includes an illumination angle (ß) different from zero, and detection optics having a detection lens (8), the optical axis (9) thereof together with the normals of the reference surface including a detection angle (δ) different from zero. According to the invention said assembly has a separating layer system of one or a plurality of layers of specified thicknesses and made of specified materials for spatial separation of the medium (2), in which the sample (3) is present, from the illumination lens (6) and the detection lens (8), wherein the separating layer system, together with a boundary surface (11) aligned parallel to the reference surface, at least in the region accessible for the illumination lens (6) and the detection lens (8) for the illumination and the detection, contacts the medium (2). According to the invention, the illumination angle (ß) and detection angle (δ) are specified based on numeric apertures (NAD, NAB) of the detection lens (8) or the illumination lens (6).

IPC 8 full level

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