

Title (en)
MICROSCOPE HAVING A BEAM SPLITTER ASSEMBLY

Title (de)
MIKROSKOP MIT EINER STRAHLTEILERANORDNUNG

Title (fr)
MICROSCOPE AVEC DISPOSITIF SÉPARATEUR DE FAISCEAU

Publication
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Application
EP 15741575 A 20150728

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Abstract (en)
[origin: WO2016016270A1] The invention relates to a microscope (10), comprising a light source or a plurality of light sources (30), which individually or jointly produce an illumination beam path having light in a plurality of wavelength ranges, a dichroic beam splitter assembly (52) having a dichroic mirror surface (54), which dichroic mirror surface is arranged between an objective optical unit (12) and a tubular lens (24) in a beam path segment (72) comprising a plurality of wavelength ranges and which produces a reflection partial beam (32) in the direction of a reflection beam path (66) by means of reflection and a transmission partial beam (68) in the direction of a transmission beam path (70) by means of transmission, the transmitted wavelength range of which transmission beam path is different from the reflected wavelength range of the reflection partial beam (32), wherein the beam splitter assembly (52) changes the propagation direction of the reflection partial beam (32) in relation to the illumination beam path by a predetermined deflection angle (a). The dichroic mirror surface (54) is arranged at an angle of $22.5 \pm 7.5^\circ$ in the beam path segment (72), and the beam splitter assembly (52) has at least one further mirror (56), which is arranged in the reflection beam path (66), wherein the propagation direction of the reflection partial beam (32) is changed by the predetermined deflection angle (a) by means of the sum of all reflections at the dichroic mirror surface (54) and at the at least one further mirror (56).

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