

Title (en)
LASER FEMTOSECOND MICROTOME FOR CUTTING OUT A MATERIAL SLICE BY A LASER BEAM, IN PARTICULAR IN A CORNEA

Title (de)
LASER-FEMTOSEKUNDEN-MIKROTOM ZUM AUSSCHNEIDEN EINER MATERIALSCHEIBE DURCH EINEN LASERSTRAHL, INSBESONDERE IN EINEM ECKBEREICH

Title (fr)
MICROTOME LASER FEMTOSECONDE POUR DECOUPE PAR FAISCEAU LASER D'UNE TRANCHE DE MATIERE, NOTAMMENT DANS UNE CORNEE

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Application
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Priority
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Abstract (en)
[origin: WO2007051951A2] The invention relates to a laser femtosecond microtome for cutting out at least one slice of material from a material block by means of a focused laser beam, wherein said material block comprises a front surface and a slice carrying said front surface, the slice extends at least partially on a X, Z plane perpendicular to an axis Z of the block thickness, is separated from the remaining part of the block by a cleavage surface formed by an assembly of bubbles brought together and each bubble is formed in the focus area of at least one convergent laser beam pulse of an optical axis L. According to said invention, the optical axis L of the laser beam convergent part (3) forms an angle ranging from 45° to + 45° with respect to the X, Z plane. An ellipsoid-shaped focus area has the smallest axis thereof in the direction of the axis Y.

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