

Title (en)
APPARATUS AND METHOD FOR CUTTING A MATERIAL

Title (de)
VORRICHTUNG UND VERFAHREN ZUM TRENNEN EINES MATERIALS

Title (fr)
APPAREIL ET PROCÉDÉ DE COUPE D'UN MATÉRIAU

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Application
EP 21801071 A 20211025

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Abstract (en)
[origin: WO2022128214A1] The invention relates to a method and an apparatus for cutting a workpiece (1) containing a transparent material, wherein material modifications (5) are introduced into the transparent material of the workpiece (1) along a cutting line (4) by means of ultrashort laser pulses of an ultrashort pulse laser, whereupon the material of the workpiece (1) is cut, in a cutting step, along the material modification area (50) formed thereby, the laser pulses being applied to the workpiece (1) at an angle of attack (α), the optical aberration of the laser pulses during the transition into the material of the workpiece (1) being reduced by an aberration correction device (7), the laser beam (20) having a radially asymmetrical transverse intensity distribution (220), said transverse intensity distribution (220) being elongate along a first axis (A) compared to a second axis (B), the second axis (B) running perpendicularly to the first axis (A).

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