

Title (en)  
METHOD FOR SEPARATING A WORKPIECE

Title (de)  
VERFAHREN ZUM TRENNEN EINES WERKSTÜCKS

Title (fr)  
PROCÉDÉ DE SÉPARATION D'UNE PIÈCE

Publication  
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Application  
**EP 21765891 A 20210818**

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Abstract (en)  
[origin: WO2022053273A1] The invention relates to a method for separating a workpiece (1) along a separating line (10) using laser pulses (20) of a laser beam (2), preferably for cutting silicon using ultrashort pulses of an ultrashort pulse laser, particularly preferably for cutting a chip out of a silicon wafer, wherein the laser beam (2) is split into multiple sub-laser beams (26) using a beam-splitting optical unit (62), and each of the sub-laser beams (26) is focused onto the surface (12) and/or into the volume of the workpiece (1) by a focusing optical unit (64) such that the sub-laser beams (26) are arranged next to one another in a mutually spaced manner along the separating line (10), wherein material is removed by introducing the laser pulses (20) into the workpiece (1) along the separating line (10), and the sub-laser beams (26) are repeatedly moved away from their starting positions along the separating line (10) by a deflection amount and subsequently moved back to the starting positions along the separating line (10), said deflection amount being less than or equal to the spacing (L) between two adjacent sub-laser beams (26).

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