Title (en)

MULTI-APERTURE LASER SYSTEM

Title (de)

MULTI-APERTUR-LASERSYSTEM

Title (fr)

SYSTÈME LASER À OUVERTURES MULTIPLES

Publication

EP 3864726 A1 20210818 (DE)

Application

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Abstract (en)

[origin: WO2020074581A1] The invention relates to an optical system having a dividing element (2), which divides the input laser beam (EL) into a number of spatially separate sub-beams, at least one optical amplifier (4), through which the spatially separate sub-beams propagate, at least one path-length adjustment element (3), which adjusts the path length of at least one of the sub-beams, and a combination element (6, 8), which coherently superimposes the sub-beams in an output laser beam. The invention addresses the problem of achieving high beam quality of the output laser beam, and reducing the requirements of the surface quality of the used optical components as compared to the prior art. To this end, the invention proposes that at least one optical functional element (5, 5', 6', 7) from the group of transport element, spectral broadening element, beam deflection element, optical isolator, optical modulator and pulse compressor is provided, which functional element is arranged after the at least one optical amplifier (4) in the beam path, and through which functional element the spatially separate sub-beams propagate.

IPC 8 full level

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Citation (search report)

See references of WO 2020074581A1

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