

Title (en)  
LASER SYSTEM COMPRISING SEVERAL LONGITUDINALLY PUMPED LASER-ACTIVE SOLID BODIES

Title (de)  
LASERSYSTEM MIT MEHREREN LONGITUDINAL GEPUMPTEN LASERAKTIVEN FESTKÖRPERN

Title (fr)  
SYSTEME LASER COMPORTANT PLUSIEURS SOLIDES ACTIFS LASERS POMPES LONGITUDINALEMENT

Publication  
**EP 1891718 A1 20080227 (DE)**

Application  
**EP 06754248 A 20060609**

Priority  
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Abstract (en)  
[origin: WO2006131385A1] The aim of the invention is to obtain the optimum possible power yield for a laser system comprising a guide assembly (10) for a laser radiation field, the latter (16) extending through said assembly. The assembly comprises at least one laser-active solid body (20), which is penetrated by the resonator radiation field (16), a pump radiation guide assembly (60), which splits the pump radiation (64) into a first and a second partial radiation field (82, 84) and which feeds the first partial radiation field (82) into the solid body (20) via one end face (24) and the second partial radiation field (84) via the other end face (26) in a longitudinal direction. To achieve this aim, the laser radiation field (16) penetrates at least two laser-active solid bodies (20) consisting of an identical material and positioned in succession along the radiation axis (18) of said field, the pump radiation guide assembly (60) is configured in such a way that it feeds the first partial radiation field (82) and the second partial radiation field (84) into each of the solid bodies (20) and the pump radiation guide assembly (60) is configured in such a way that the pump power that is fed into each of the two or more solid bodies (20) by the two partial radiation fields (82, 84) can be adjusted in such a way that the effects of the thermal lenses (130), which are generated by the pump power in each of the two or more solid bodies (20), on the laser radiation field (16) are essentially identical.

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Citation (search report)  
See references of WO 2006131385A1

Citation (examination)  
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• US 5446749 A 19950829 - NIGHAN JR WILLIAM L [US], et al

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