

Title (en)  
LASER DEVICE WITH HIGH AVERAGE POWER FIBRE

Title (de)  
LASERANORDNUNG MIT EINER FASER MIT HOHER MITTLERER LEISTUNG

Title (fr)  
DISPOSITIF LASER A FIBRE DE FORTE PUISSANCE MOYENNE

Publication  
**EP 2335330 A1 20110622 (FR)**

Application  
**EP 09736437 A 20090902**

Priority  
• FR 2009001053 W 20090902  
• FR 0855879 A 20080902

Abstract (en)  
[origin: WO2010026309A1] The invention relates to a laser device (1) having a fibre emitting a single-mode transverse radiation controlled at a given wavelength, which comprises: at least one laser diode (2) capable of emitting a pump wave and a sheathed amplifying optic-fibre segment (6) having two ends, the amplifying optic fibre (2) including a core and a pumping sheath, the fibre being doped with a rare-earth dopant, characterised in that the core of the fibre has a diameter of between 12 µm and 200 µm, and in that the device (1) includes: a coupling means (4) for coupling the pump wave in the pumping sheath to at least one end of the fibre, and a resonator capable of re-injecting a laser beam at the given wavelength at the two ends of said segment (6), said resonator including an intra-cavity wavelength selective means (5, 13) capable of interaction with the injection means (4) so as to perform a filtration on the given wavelength and re-inject into the fibre (6) the pump wave which has not been absorbed after passing in the fibre (6).

IPC 8 full level  
**H01S 3/094** (2006.01); **G02B 6/02** (2006.01); **H01S 3/067** (2006.01); **H01S 3/0941** (2006.01); **H01S 3/16** (2006.01)

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Citation (search report)  
See references of WO 2010026309A1

Citation (examination)  
US 2006176911 A1 20060810 - SALIN FRANCOIS [FR], et al

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