

Title (en)

OPTICAL DEVICE WITH WAVEGUIDE FOR TRANSFERRING ELECTROMAGNETIC ENERGY IN THE FORM OF A RADIATION BEAM

Title (de)

OPTISCHE WELLENLEITERVORRICHTUNG ZUR ÜBERTRAGUNG VON ELEKTROMAGNETISCHER ENERGIE IN FORM VON STRALBÜNDEL

Title (fr)

DISPOSITIF OPTIQUE A GUIDE D'ONDES POUR LE TRANSFERT D'ENERGIE ELECTROMAGNETIQUE SOUS FORME D'UN FAISCEAU DE RAYONNEMENT

Publication

EP 1031051 A1 20000830 (FR)

Application

EP 98954523 A 19981105

Priority

- FR 9802367 W 19981105
- FR 9714206 A 19971110

Abstract (en)

[origin: FR2770911A1] The invention concerns an optical device with waveguide (1) for transferring electromagnetic energy in the form of a radiation beam (I) whose wavelength can be in the range of visible light and near infrared radiation, comprising a waveguide (1) extending between an input medium (2) and an output medium (3), having a material transparent structure with respect to the transmitted radiation and elongated in the radiation propagation direction (Z). The invention is characterised in that the waveguide (1) material structure has a maximum transverse dimension (Do), in the incident radiation beam (I) plane, which is less than half the wavelength λ of the incident beam (I), the waveguide (I) material structure has inhomogeneities in the optical refractive index in the radiation propagation direction (Z) and the transferred radiation is collected at a submicronic distance from the optical device waveguide (1) output surface (3a).

IPC 1-7

G02B 6/122

IPC 8 full level

G02B 6/10 (2006.01); **G11B 7/135** (2012.01)

CPC (source: EP)

B82Y 10/00 (2013.01); **G02B 6/10** (2013.01); **G11B 7/135** (2013.01)

Citation (search report)

See references of WO 9924853A1

Designated contracting state (EPC)

AT BE CH DE DK ES FI GB GR IE IT LI LU NL PT SE

DOCDB simple family (publication)

FR 2770911 A1 19990514; **FR 2770911 B1 19991217**; AU 1159999 A 19990531; EP 1031051 A1 20000830; WO 9924853 A1 19990520

DOCDB simple family (application)

FR 9714206 A 19971110; AU 1159999 A 19981105; EP 98954523 A 19981105; FR 9802367 W 19981105