

Title (en)
OPTICAL GUIDE COMPRISING NANOPARTICLES AND METHOD OF PRODUCING A PREFORM WHICH IS INTENDED TO FORM ONE SUCH OPTICAL GUIDE

Title (de)
OPTISCHE FÜHRUNG MIT NANOPARTIKELN UND VERFAHREN ZUR HERSTELLUNG EINER VORFORM, DIE EINE SOLCHE OPTISCHE FÜHRUNG BILDEN SOLL

Title (fr)
GUIDE OPTIQUE COMPRENANT DES NANOPARTICULES ET PROCEDE DE FABRICATION D'UNE PREFORME DESTINEE A FORMER UN TEL GUIDE OPTIQUE

Publication
EP 1917702 A2 20080507 (FR)

Application
EP 06808243 A 20060817

Priority
• FR 2006050802 W 20060817
• FR 0552520 A 20050817

Abstract (en)
[origin: WO2007020362A2] The invention relates to an optical fibre comprising a gain medium which is equipped with: a core (22) which is formed from a transparent material and nanoparticles (24) comprising a doping element and at least one element for enhancing the use of said doping element; and an outer sheath (26) which surrounds the core. The invention is characterised in that the doping element is erbium (Er) and in that the enhancing element is selected from among antimony (Sb), bismuth (Bi) and a combination of antimony (Sb) and bismuth (Bi). According to the invention, one such fibre is characterised in that the size of the nanoparticles is variable and included between 1 and 500 nanometers and preferably greater than 20 nm.

IPC 8 full level
H01S 3/067 (2006.01)

CPC (source: EP US)
C03C 3/06 (2013.01 - EP US); **C03C 4/0071** (2013.01 - EP US); **C03C 4/10** (2013.01 - EP US); **C03C 13/045** (2013.01 - EP US); **C03C 14/004** (2013.01 - EP US); **C03C 14/006** (2013.01 - EP US); **C09K 11/7701** (2013.01 - EP US); **H01S 3/06754** (2013.01 - EP US); **C03C 2201/20** (2013.01 - EP US); **C03C 2201/30** (2013.01 - EP US); **C03C 2201/3476** (2013.01 - EP US); **H01S 3/06716** (2013.01 - EP US); **H01S 3/169** (2013.01 - EP US)

Citation (search report)
See references of WO 2007020362A2

Cited by
EP2187486A1; US8259389B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2007020362 A2 20070222; WO 2007020362 A3 20070510; CN 101288212 A 20081015; CN 101288212 B 20101117; EP 1917702 A2 20080507; FR 2889876 A1 20070223; FR 2889876 B1 20080222; US 2009116798 A1 20090507; US 2010329628 A1 20101230; US 8000577 B2 20110816; US 8014647 B2 20110906

DOCDB simple family (application)
FR 2006050802 W 20060817; CN 200680038415 A 20060817; EP 06808243 A 20060817; FR 0552520 A 20050817; US 6395006 A 20060817; US 80598910 A 20100827