

Title (en)

METHOD FOR MODELLING OPTICAL FIBER AMPLIFIERS

Title (de)

VERFAHREN ZUR MODELLIERUNG FASEROPTISCHER VERSTÄRKER

Title (fr)

PROCEDE DE MODELISATION D AMPLIFICATEURS A FIBRES OPTIQUES

Publication

EP 1461849 A1 20040929 (FR)

Application

EP 02799787 A 20021206

Priority

- FR 0204210 W 20021206
- FR 0115842 A 20011207

Abstract (en)

[origin: WO03049240A1] The invention concerns a method for modelling an optical fiber amplifier, characterized in that it comprises steps which consist in: establishing (100) speed equations and propagation equations of physical phenomena or effects intervening in an optical fiber amplifier; obtaining (112) accurate analytical solution of the equations of signal propagation in the fiber, discretizing them and interpolating them along the fiber; solving (120) the speed equations previously discretized by injecting therein, the solutions obtained from the propagation equations; delivering (130) the performance parameters of the fiber in terms of amplification.

IPC 1-7

H01S 3/067

IPC 8 full level

C03C 13/04 (2006.01); **H01S 3/00** (2006.01); **H01S 3/06** (2006.01); **H01S 3/067** (2006.01); **H01S 3/10** (2006.01); **H01S 3/094** (2006.01); **H01S 3/16** (2006.01)

CPC (source: EP US)

C03C 13/00 (2013.01 - EP US); **H01S 3/06754** (2013.01 - EP US); **H01S 3/06729** (2013.01 - EP US); **H01S 3/06758** (2013.01 - EP US); **H01S 3/094003** (2013.01 - EP US); **H01S 3/1608** (2013.01 - EP US); **H01S 3/1618** (2013.01 - EP US)

Citation (search report)

See references of WO 03049240A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)

WO 03049240 A1 20030612; **WO 03049240 A8 20040603**; AU 2002364430 A1 20030617; CA 2469591 A1 20030612; EP 1461849 A1 20040929; FR 2833416 A1 20030613; FR 2833416 B1 20040625; JP 2005512332 A 20050428; US 2005068610 A1 20050331; US 7151631 B2 20061219

DOCDB simple family (application)

FR 0204210 W 20021206; AU 2002364430 A 20021206; CA 2469591 A 20021206; EP 02799787 A 20021206; FR 0115842 A 20011207; JP 2003550324 A 20021206; US 49788104 A 20040604