Title (en)

OPTICAL WAVEGUIDE COMPRISING A STRUCTURED SURFACE, AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

LICHTLEITER MIT EINER STRUKTURIERTEN OBERFLÄCHE UND VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)

GUIDE D'ONDES OPTIQUES A SURFACE TEXTUREE ET PROCEDE DE PRODUCTION DE CELUI-CI

Publication

EP 1792215 A2 20070606 (DE)

Application

EP 05794676 A 20050920

Priority

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- DE 102004047498 A 20040923

Abstract (en)

[origin: WO2006032654A2] The invention relates to a method for creating a structure (22) within the surface of an optical waveguide (11) by means of a laser (13), laser ablation being used in said method. The advantage of laser ablation-aided production lies in the fact that the structure (22), which is composed of parallel channels (25), for example, can be produced with great accuracy while the cross section of the optical waveguide (11) is weakened to a relatively small extent as a result of the constant depth of the channels produced by means of laser ablation. In addition, the damping rate of the optical waveguide, which is created by the structure (22), can advantageously be determined in an optical manner during production, thus advantageously making it easy to assure quality. Also disclosed is an optical waveguide whose structure comprises a regular pattern of individual structured elements such as channels (25) which are configured at a constant depth inside the surface.

IPC 8 full level

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CPC (source: EP)

G02B 6/02066 (2013.01); **G02B 6/02147** (2013.01); **G02B 6/266** (2013.01); G02B 6/02142 (2013.01)

Citation (search report)

See references of WO 2006032654A2

Citation (examination)

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