

Title (en)

METHOD FOR INCREASING THE LASER DAMAGE THRESHOLD OF DIFFRACTION GRIDS

Title (de)

VERFAHREN ZUR ERHÖHUNG DER LASERZERSTÖRSCHWELLE VON BEUGUNGSGITTERN

Title (fr)

PROCEDE POUR AUGMENTER LE SEUIL DE DESTRUCTION LASER DE RESEAUX DE DIFFRACTION

Publication

EP 1851177 A2 20071107 (DE)

Application

EP 06707011 A 20060216

Priority

- EP 2006001410 W 20060216
- EP 05003757 A 20050222
- EP 06707011 A 20060216

Abstract (en)

[origin: WO2006089681A2] The aim of the invention is to increase the laser damage threshold LDT of diffraction grids, especially dielectrically coated (multi-layer dielectric; MLD) diffraction grids. To this end, the invention relates to a method for treating a diffraction grid to be used in a high-energy laser device comprising a first laser, said method comprising the following steps: the diffraction grid is prepared, a second treatment laser is prepared, and the diffraction grid is irradiated with laser light from the second treatment laser until the laser damage threshold of the diffraction grid is increased. The invention also relates to a diffraction grid treated according to said method, and a laser system comprising one such diffraction grid.

IPC 8 full level

C03C 23/00 (2006.01); **B23K 26/40** (2006.01)

CPC (source: EP KR US)

B23K 26/0604 (2013.01 - EP KR US); **B23K 26/0613** (2013.01 - EP KR US); **B23K 26/067** (2013.01 - EP KR US); **G02B 1/12** (2013.01 - EP KR US); **G02B 5/18** (2013.01 - EP KR US); **H01S 3/0057** (2013.01 - EP KR US); **H01S 3/08009** (2013.01 - KR)

Citation (search report)

See references of WO 2006089681A2

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 2006089681 A2 20060831; **WO 2006089681 A3 20061207**; EP 1851177 A2 20071107; JP 2008532070 A 20080814; JP 4901762 B2 20120321; KR 101004425 B1 20101228; KR 20070120491 A 20071224; US 2009028206 A1 20090129; US 8349226 B2 20130108

DOCDB simple family (application)

EP 2006001410 W 20060216; EP 06707011 A 20060216; JP 2007556534 A 20060216; KR 20077019228 A 20060216; US 88343506 A 20060216