

Title (en)

SYSTEMS AND METHODS FOR LENTICULAR LASER INCISION

Title (de)

SYSTEME UND VERFAHREN FÜR LINSENFÖRMIGEN LASEREINSCHNITT

Title (fr)

SYSTÈMES ET MÉTHODES POUR UNE INCISION LENTICULAIRE AU LASER

Publication

EP 3840702 A1 20210630 (EN)

Application

EP 19851297 A 20190819

Priority

- US 201816109654 A 20180822
- IB 2019056981 W 20190819

Abstract (en)

[origin: WO2020039328A1] Embodiments of this invention generally relate to ophthalmic laser procedures and, more particularly, to systems and methods for lenticular laser incision. In an embodiment, an ophthalmic surgical laser system comprises a laser delivery system for delivering a pulsed laser beam to a target in a subject's eye, an XY-scan device to deflect the pulsed laser beam, a Z-scan device to modify a depth of a focus of the pulsed laser beam, and a controller configured to form a top lenticular incision and a bottom lenticular incision of a lens in the subject's eye, where each of the top and bottom lenticular incision includes a center spherical portion and an edge transition portion that is not located on the same spherical surface as the spherical portion but has a steeper shape.

IPC 8 full level

A61F 9/008 (2006.01); **A61B 18/20** (2006.01)

CPC (source: EP)

A61F 9/00827 (2013.01); **A61F 9/00829** (2013.01); **A61F 9/00834** (2013.01); **A61F 9/00836** (2013.01); **A61F 2009/00846** (2013.01);
A61F 2009/00848 (2013.01); **A61F 2009/00872** (2013.01); **A61F 2009/00897** (2013.01)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2020039328 A1 20200227; AU 2019323793 A1 20201203; CA 3100509 A1 20200227; EP 3840702 A1 20210630; EP 3840702 A4 20220511

DOCDB simple family (application)

IB 2019056981 W 20190819; AU 2019323793 A 20190819; CA 3100509 A 20190819; EP 19851297 A 20190819