

Title (en)
OPHTHALMIC DEVICE WITH METALENS AND METHOD OF MAKING

Title (de)
OPHTHALMISCHE VORRICHTUNG MIT METALLENEN UND VERFAHREN ZUR HERSTELLUNG

Title (fr)
DISPOSITIF OPHTALMIQUE À MÉTA-LENTILLE ET SON PROCÉDÉ DE FABRICATION

Publication
EP 3727199 A4 20210714 (EN)

Application
EP 17935708 A 20171218

Priority
CA 2017051529 W 20171218

Abstract (en)
[origin: WO2019119098A1] Ophthalmic devices are used to treat a variety of eye conditions. Such devices include intraocular lens (IOL) implants, contact lenses, intraocular telescopes, and the like. Such ophthalmic devices typically include one or more lenses to interact with visible light. According to an aspect of the disclosure, there is provided an ophthalmic device comprising a biocompatible polymer body and a metalens. The metalens is encapsulated by the polymer body. The metalens comprises a substantially transparent substrate and a plurality of subwavelength structures arranged on the substrate in a pattern to interact with visible light. subwavelength structures comprise a dielectric material such as titanium dioxide.

IPC 8 full level
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Citation (search report)
• [XY] US 9664817 B1 20170530 - DI FALCO ANDREA [GB]
• [YD] KHORASANINEJAD MOHAMMADREZA ET AL: "Visible Wavelength Planar Metalenses Based on Titanium Dioxide", IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 23, no. 3, 1 May 2017 (2017-05-01), pages 1 - 16, XP011638277, ISSN: 1077-260X, [retrieved on 20161229], DOI: 10.1109/JSTQE.2016.2616447
• See references of WO 2019119098A1

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