Title (en)

LENS SYSTEMS USING FREE FORM ELEMENTS TO MATCH OBJECT SPACE AND IMAGE SPACE, AND METHODS THEREFOR

Title (de)

LINSENSYSTEME MIT FREIFORMELEMENTEN ZUR ANPASSUNG VON OBJEKTRAUM UND BILDRAUM UND VERFAHREN DAFÜR

Title (fr)

SYSTÈMES DE LENTILLE UTILISANT DES ÉLÉMENTS À FORME LIBRE POUR METTRE EN CORRESPONDANCE UN ESPACE D'OBJET ET UN ESPACE D'IMAGE, ET PROCÉDÉS ASSOCIÉS

Publication

EP 3871029 A1 20210901 (EN)

Application

EP 19876328 A 20191022

Priority

- US 201862748961 P 20181022
- US 201862748976 P 20181022
- US 2019057467 W 20191022

Abstract (en)

[origin: WO2020086603A1] Lens system suited for a wide variety of applications uses a variety of freeform lens shapes or surfaces, defined typically by Zernike, Chebyshev or X-Y polynomials to enable low f-number, wide field of view, improved off-axis performance, and other optical characteristics not achievable with rotationally symmetric lenses. The design can be implemented using existing manufacturing techniques.

IPC 8 full level

G02B 3/04 (2006.01); **G02B 13/00** (2006.01); **G02B 13/18** (2006.01)

CPC (source: EP)

G02B 13/00 (2013.01); **G02B 13/02** (2013.01); **G02B 13/18** (2013.01); **G02B 27/0012** (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 2020086603 A1 20200430; CN 114144713 A 20220304; EP 3871029 A1 20210901; EP 3871029 A4 20220817

DOCDB simple family (application)

US 2019057467 W 20191022; CN 201980085536 A 20191022; EP 19876328 A 20191022