

Title (en)

SMALL FORM FACTOR, MULTISPECTRAL 4-MIRROR BASED IMAGING SYSTEMS

Title (de)

MULTISPEKTRALE 4-SPIEGEL-BASIERTE BILDGEBUNGSSYSTEME MIT KLEINEM FORMFAKTOR

Title (fr)

SYSTÈMES D'IMAGERIE À BASE DE QUATRE MIROIRS MULTISPECTRAUX À FAIBLE FACTEUR DE FORME

Publication

**EP 4291936 A1 20231220 (EN)**

Application

**EP 22753155 A 20220203**

Priority

- US 202117173141 A 20210210
- US 2022015044 W 20220203

Abstract (en)

[origin: WO2022173642A1] An all-reflective or reflective and cata-dioptic optical system is described including a concave primary mirror having a central aperture and a radius, the primary mirror having one of a parabolic, non-parabolic conical, or aspherical surface, a convex secondary mirror facing the primary mirror, the secondary mirror having an aspherical surface, where an optical axis extends from a vertex of the primary mirror to a vertex of the secondary mirror, a concave tertiary mirror arranged behind the primary mirror, the tertiary mirror having one of a parabolic, non-parabolic conical or aspherical surface, a concave quaternary mirror arranged in the central aperture of the primary mirror or behind the primary mirror, the quaternary mirror having one of a spherical, parabolic, non-parabolic conical or aspherical surface, and/or at least one image plane having one or more aggregated sensors. Additional multispectral imaging may utilize beam splitter(s), folding mirror(s), focal length optimizer(s) and/or additional image planes.

IPC 8 full level

**G02B 17/06** (2006.01); **G02B 17/08** (2006.01)

CPC (source: EP IL KR)

**B64G 1/1028** (2023.08 - EP IL KR); **G01J 3/0208** (2013.01 - IL KR); **G01J 3/021** (2013.01 - IL KR); **G01J 3/2823** (2013.01 - IL KR); **G02B 17/0663** (2013.01 - EP IL KR); **G01J 3/0208** (2013.01 - EP); **G01J 3/021** (2013.01 - EP); **G01J 3/2823** (2013.01 - EP); **G01J 2003/2826** (2013.01 - EP IL KR)

Citation (search report)

See references of WO 2022173642A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**WO 2022173642 A1 20220818**; CN 117337406 A 20240102; EP 4291936 A1 20231220; IL 304975 A 20231001; KR 20230136669 A 20230926

DOCDB simple family (application)

**US 2022015044 W 20220203**; CN 202280027698 A 20220203; EP 22753155 A 20220203; IL 30497523 A 20230806; KR 20237030809 A 20220203