

Title (en)

OPTICAL SENSOR

Title (de)

OPTISCHER SENSOR

Title (fr)

CAPTEUR OPTIQUE

Publication

EP 3700618 A1 20200902 (FR)

Application

EP 18788782 A 20181024

Priority

- FR 1760062 A 20171025
- EP 2018079119 W 20181024

Abstract (en)

[origin: WO2019081562A1] The invention relates to an optical sensor (1), in particular an artificial retina, with at least one photosensitive cell, each cell including: - an integration capacitor (Cm), - a reading circuit (10) of which the operation depends on the charge of the integration capacitor (Cm), - at least one MOS transistor (3; 31; 32) operating below the threshold, the drain-to-source current of which influences the charge of the integration capacitor (Cm), - at least one photodiode (2; 21; 22) operating in photovoltaic mode, connected to the gate of this transistor, so that the drain-to-source current of the MOS transistor depends on the optical power received by the photodiode.

IPC 8 full level

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G06N 3/063 (2013.01 - EP IL KR); **H01L 27/14643** (2013.01 - KR); **H04N 25/75** (2023.01 - US); **H04N 25/77** (2023.01 - EP);
H04N 25/771 (2023.01 - US); **H04N 25/772** (2023.01 - EP); **H04N 25/78** (2023.01 - EP IL KR); **G01J 2001/446** (2013.01 - US)

Citation (examination)

- US 2005280713 A1 20051222 - HAGIHARA YOSHIO [JP], et al
- US 2008284890 A1 20081120 - MIYATAKE SHIGEHIRO [JP]
- See also references of WO 2019081562A1

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

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DOCDB simple family (publication)

FR 3072564 A1 20190426; **FR 3072564 B1 20191018**; CN 111542367 A 20200814; CN 111542367 B 20240920; EP 3700618 A1 20200902;
IL 274168 A 20200630; IL 274168 B1 20231201; IL 274168 B2 20240401; JP 2021500215 A 20210107; JP 7321171 B2 20230804;
KR 20200105809 A 20200909; TW 201929917 A 20190801; TW I775971 B 20220901; US 11478634 B2 20221025;
US 2020346004 A1 20201105; WO 2019081562 A1 20190502

DOCDB simple family (application)

FR 1760062 A 20171025; CN 201880070266 A 20181024; EP 18788782 A 20181024; EP 2018079119 W 20181024; IL 27416820 A 20200423;
JP 2020543709 A 20181024; KR 20207011697 A 20181024; TW 107137668 A 20181025; US 201816758583 A 20181024