



US 20240179983A1

(19) **United States**

(12) **Patent Application Publication**  
**MAKAINO et al.**

(10) **Pub. No.: US 2024/0179983 A1**

(43) **Pub. Date: May 30, 2024**

(54) **ORGANIC DEVICE, DISPLAY APPARATUS INCLUDING THE SAME, PHOTOELECTRIC CONVERSION APPARATUS, ELECTRONIC APPARATUS, ILLUMINATION APPARATUS, MOVING OBJECT, AND WEARABLE DEVICE**

**G02B 27/01** (2006.01)

**G03B 13/02** (2006.01)

**H10K 59/35** (2006.01)

**H10K 59/80** (2006.01)

(52) **U.S. Cl.**

**CPC** ..... **H10K 59/131** (2023.02); **F21V 23/005**

(2013.01); **G02B 27/0172** (2013.01); **G03B**

**13/02** (2013.01); **H10K 59/35** (2023.02);

**H10K 59/878** (2023.02); **F21Y 2115/15**

(2016.08)

(71) Applicant: **CANON KABUSHIKI KAISHA,**  
Tokyo (JP)

(72) Inventors: **AKINORI MAKAINO,** Kanagawa  
(JP); **TAKASHI USUI,** Kanagawa (JP);  
**TOSHIHIRO SHOYAMA,** Kanagawa  
(JP)

(21) Appl. No.: **18/518,235**

(22) Filed: **Nov. 22, 2023**

(30) **Foreign Application Priority Data**

Nov. 28, 2022 (JP) ..... 2022-189341

**Publication Classification**

(51) **Int. Cl.**

**H10K 59/131** (2006.01)

**F21V 23/00** (2006.01)

(57)

**ABSTRACT**

An organic device includes a reflection layer, a first electrode, an organic layer, and a second electrode arranged in that order above a first principal surface of a substrate. The first electrode includes first to fourth regions. The first region is in contact with the organic layer. The second region being is inclined in a direction away from the substrate. The third region has an inclination less than that of the second region with respect to the substrate. The fourth region is inclined in the direction away from the substrate and has an inclination greater than that of the third region with respect to the substrate. The first and second regions are in contact with each other. The second and third regions are in contact with each other. The third and fourth regions are in contact with each other.

