

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2024/0215392 A1 ZHANG et al.

Jun. 27, 2024 (43) **Pub. Date:**

(54) OLED DISPLAY DEVICE AND PREPARATION METHOD THEREOF

(71) Applicant: BOE Technology Group Co., Ltd.,

Beijing (CN)

(72) Inventors: Ziyu ZHANG, Beijing (CN); Jia

ZHAO, Beijing (CN); Pinfan WANG,

Beijing (CN); Haoran WANG, Beijing

(CN)

(21) Appl. No.: 17/801,803

(22) PCT Filed: Nov. 19, 2021

PCT/CN2021/131592 (86) PCT No.:

§ 371 (c)(1),

(2) Date: Nov. 3, 2022

(30)Foreign Application Priority Data

(CN) 202110476532.2

Publication Classification

(51) Int. Cl. H10K 59/80

(2006.01)

H10K 71/00

(2006.01)

H10K 102/00

(2006.01)

(52) U.S. Cl.

CPC H10K 59/873 (2023.02); H10K 71/851

(2023.02); H10K 2102/311 (2023.02)

(57)**ABSTRACT**

An OLED display device and a preparation method thereof are provided. The OLED display device includes a flat region and a bent region around the flat region; the bent region is bent toward a backlight side of the flat region, and the bent region includes at least one stretching region; the stretching region comprises a display region and a first etching region, the first etching region is located at an edge of the display region away from the flat region and is connected with at least part the edge of the display region at the side away from the flat region; the display region includes at least one opening, and a boundary of the first etching region and the display region bypasses the opening; the display region includes a first display film layer, and the first etching region is a region where the first display film layer is etched away.

