

US 20240237404A9

(19) United States

(12) Patent Application Publication LI et al.

(10) Pub. No.: US 2024/0237404 A9

(48) **Pub. Date: Jul. 11, 2024 CORRECTED PUBLICATION**

(54) DISPLAY DEVICE AND MANUFACTURING METHOD THEREOF

(71) Applicant: **BOE TECHNOLOGY GROUP CO., LTD.**, Beijing (CN)

(72) Inventors: **Dachao LI**, Beijing (CN); **Shengji YANG**, Beijing (CN); **Chen XU**,

Beijing (CN)

(73) Assignee: **BOE TECHNOLOGY GROUP CO.,**

LTD., Beijing (CN)

(21) Appl. No.: 18/476,687

(22) Filed: Sep. 28, 2023

Prior Publication Data

(15) Correction of US 2024/0138189 A1 Apr. 25, 2024 See (22) Filed

(65) US 2024/0138189 A1 Apr. 25, 2024

Related U.S. Application Data

(63) Continuation of application No. 16/958,890, filed on Jun. 29, 2020, filed as application No. PCT/CN2019/ 102310 on Aug. 23, 2019.

Publication Classification

(51) Int. Cl. H10K 59/121 (2006.01) G09G 3/3233 (2006.01) H10K 59/131 (2006.01) H10K 71/00 (2006.01)

(52) U.S. Cl.

CPC *H10K 59/1213* (2023.02); *G09G 3/3233* (2013.01); *H10K 59/131* (2023.02); *H10K 71/00* (2023.02); *G09G 2300/0426* (2013.01); *G09G 2330/021* (2013.01); *H10K 59/1201* (2023.02)

(57) ABSTRACT

A display device and a manufacturing method thereof are disclosed. The display device includes a base substrate and at least one pixel circuit provided on the base substrate, and the pixel circuit includes a driving transistor, a first transistor, and a second transistor; the driving transistor includes a control electrode, a first electrode, and a second electrode; the first transistor includes a first active region, the second transistor includes a second active region, at least one of a doping concentration of the first active region and a doping concentration of the second active region is greater than a doping concentration of the fourth active region.

