

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2024/0213256 A1 WANG et al.

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

(54) DISPLAY PANEL AND DISPLAY DEVICE

(71) Applicant: WUHAN CHINA STAR **OPTOELECTRONICS** SEMICONDUCTOR DISPLAY TECHNOLOGY CO., LTD., Wuhan

(72) Inventors: Wei WANG, Wuhan (CN); Qing

HUANG, Wuhan (CN)

(21) Appl. No.: 18/288,968

(22) PCT Filed: Jun. 29, 2023

(86) PCT No.: PCT/CN2023/104235

§ 371 (c)(1),

Oct. 30, 2023 (2) Date:

(30)Foreign Application Priority Data

Dec. 22, 2022 (CN) 202211657483.3

Publication Classification

(51) Int. Cl. H01L 27/12 (2006.01)H01L 25/16 (2006.01)

U.S. Cl. CPC H01L 27/1222 (2013.01); H01L 25/167 (2013.01)

(57)**ABSTRACT**

A display panel and a display device. The display panel includes a power supply high-voltage signal line, a driving thin film transistor, and a light emitting element. The driving thin film transistor comprises an active layer. The active layer includes a source region, a drain region, and a channel region. The source region is connected to the power supply high-voltage signal line. The drain region is connected to the light emitting element. A part of the channel region close to the drain region has a lower majority carrier concentration than a part of the channel region close to the source region.

